

DOCUMENT RESUME

ED 071 991

SO 005 582

AUTHOR	Acuff, Bette C.; Sieber-Suppes, Joan
TITLE	A Manual for Coding Descriptions, Interpretations, and Evaluations of Visual Art Forms.
INSTITUTION	Stanford Univ., Calif. Stanford Center for Research and Development in Teaching.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
REPORT NO	SCRDT-RDM-95
BUREAU NO	BR-5-0252
PUB DATE	Dec 72
CONTRACT	OEC-6-10-078
NOTE	154p.
EDRS PRICE	MF-\$0.65 HC-\$6.58
DESCRIPTORS	*Aesthetic Education; Art; *Art Appreciation; *Art Education; Cues; Evaluation Criteria; *Evaluation Methods; Manuals; *Visual Arts

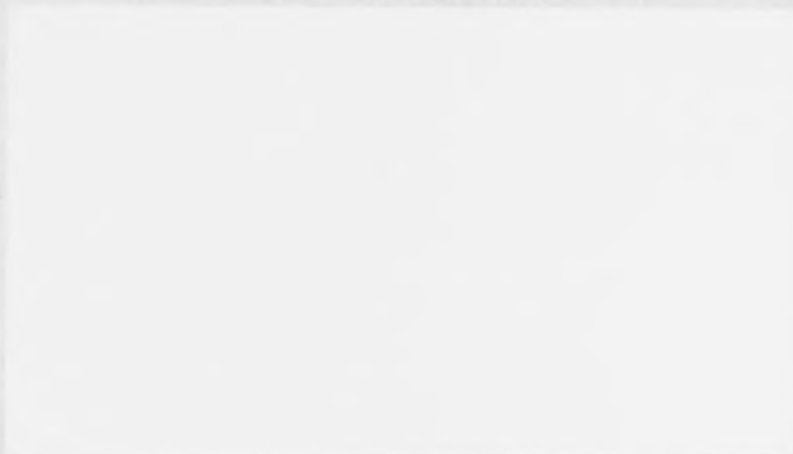
ABSTRACT

This manual presents a system for categorizing stated esthetic responses to paintings. It is primarily a training manual for coders, but it may also be used for teaching reflective thinking skills and for evaluating programs of art education. The coding system contains 33 subdivisions of esthetic responses under three major categories: Cue Attendance, Hypothesis Generation, and Evaluative Judgmental. The categories are defined with reference to reproductions of three paintings and are followed by exercise sheets and answer sheets on which the appropriate responses are explained. An appendix explains how to compute an individual's response uncertainty score based on his responses to these paintings or other works of art. (Author)

FILMED FROM BEST AVAILABLE COPY

11 CERB
BR 5-02521
50

ED 07 991



SP005582



Stanford Center for Research and Development in Teaching

SCHOOL OF EDUCATION

STANFORD UNIVERSITY

ED 071991

STANFORD CENTER
FOR RESEARCH AND DEVELOPMENT
IN TEACHING

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG-
INATING IT. POINTS OF VIEW OR OPIN-
IONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY.

Research and Development Memorandum No. 95

A MANUAL FOR CODING DESCRIPTIONS,
INTERPRETATIONS, AND EVALUATIONS
OF VISUAL ART FORMS

Bette C. Acuff and Joan Sieber-Suppes

School of Education
Stanford University
Stanford, California

December 1972

Published by the Stanford Center for Research and Development in Teaching, supported in part as a research and development center by funds from the United States Office of Education, Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect the position or policy of the Office of Education and no official endorsement by the Office of Education should be inferred. (Contract No. OEC-6-10-078, Component 1H.)

The colored reproductions used in this manual are produced and distributed by Barton Cotton, Inc., 1405 Parker Road, Baltimore, Maryland 21227. The pictures are included here even though the color and a good deal of the contrast are lost in microfiche and xerographic copies.

Introductory Statement

The Center's mission is to improve teaching in American schools. Too many teachers still employ a didactic style aimed at filling passive students with facts. The teacher's environment often prevents him from changing his style, and may indeed drive him out of the profession. And the children of the poor typically suffer from the worst teaching.

The Center uses the resources of the behavioral sciences in pursuing its objectives. Drawing primarily upon psychology and sociology, but also upon other behavioral science disciplines, the Center has formulated programs of research, development, demonstration, and dissemination in three areas. Program 1, Teaching Effectiveness, is now developing a Model Teacher Training System that can be used to train both beginning and experienced teachers in effective teaching skills. Program 2, The Environment for Teaching, is developing models of school organization and ways of evaluating teachers that will encourage teachers to become more professional and more committed. Program 3, Teaching Students from Low-Income Areas, is developing materials and procedures for motivating both students and teachers in low-income schools.

This manual was developed during 1970 and 1971 in the Heuristic Teaching program (now the program on Teaching Effectiveness). It instructs the reader in the use of a system for classifying statements about paintings. The new materials and approach it presents, however, should be of interest not only to art teachers but also to educational researchers and psychologists who are interested in studying the development of response uncertainty or complexity.

Abstract

This manual presents a system for categorizing stated esthetic responses to paintings. It is primarily a training manual for coders, but it may also be used for teaching reflective thinking skills and for evaluating programs of art education.

The coding system contains 33 subdivisions of esthetic responses under three major categories: Cue Attendance, Hypothesis Generation, and Evaluative Judgmental. The categories are defined with reference to reproductions of three paintings and are followed by exercise sheets and answer sheets on which the appropriate responses are explained. An appendix explains how to compute an individual's response uncertainty score based on his responses to these paintings or other works of art.

Three judges (graduate students in art education) coded 100 protocols like those used in the manual to evaluate the content validity and the rater reliability of the categories.

Contents

	Page
Abstract	iv
List of Tables and Illustrations	vi
Some Suggestions for Using This Manual	vii
Introduction	1
Measuring Response Complexity	4
Increasing Response Complexity	7
A Rationale for the Category System	10
Classifying Responses to Paintings	13
Explanation of Format and Purpose	17
The Programmed Format	17
Key Concepts	19
Cue-Attendance Categories	27
Material Attributes	27
Literal Attributes	28
Procedures for Coding Simple and Complex Responses . . .	31
Sensory Attributes	38
Organizational Attributes	56
Expressive Attributes	69
Contextual Attributes	76
Hypothesis-Generation Categories	81
Meaning Attributes	81
Coding of Simple and Complex Hypotheses	85
Contextual Attributes	105
Evaluative-Judgmental Categories	111
Affective and Objective Responses	111
References	121
Appendix A: Establishing the Reliability of Categories	125
Appendix B: Recording the Coded Protocol	129
Appendix C: Computing the Uncertainty Score	132

List of Tables

		Page
1	The Category System, with Codes	8
2	Inter-Judge Agreement on Coding 100 Protocols	127
3	Values of $p_i \log_2 \frac{1}{p_i}$ Corresponding to values of p	143

List of Illustrations

1	"The Green Violinist"	follows page 14
2	"Manchester Valley"	follows page 28
3	"I and My Village"	follows page 82

Some Suggestions For Using This Manual

There are three major divisions of categories in the coding system presented in this manual: Cue Attendance categories, Hypothesis Generation categories, Evaluative Judgmental categories.

To facilitate finding the categories in each of the three sections, clip off diagonally the upper-right corners of the pages in the Cue Attendance section, leave the corners of the pages in the Hypothesis Generation section intact, and clip off the lower-right corners of the pages in the Evaluative Judgmental section.

In some cases answer sheets face the sheets to be coded. Use a blank sheet of paper to mask the answers while you are working.

There are two tables of the category system in the manual. One is on p. 8; the other precedes the last page of the manual. It is suggested that you clip out the second table and tape it to the outside edge of the last page, making it a fold-out page that you can easily refer to as you read the rest of the manual.

Three colored reproductions of paintings are included. The first of these, Chagall's "The Green Violinist," should be referred to as you familiarize yourself with the characteristics of responses that express the recognition of uncertainty. The second, Pickett's "Manchester Valley," is to be used when you are learning the Cue Attendance categories. The third, Chagall's "I and My Village," is to be used in conjunction with the Hypothesis Generation and Evaluative Judgmental categories.

A MANUAL FOR CODING DESCRIPTIONS, INTERPRETATIONS,
AND EVALUATIONS OF VISUAL ART FORMS

Bette C. Acuff and Joan Sieber-Suppes

INTRODUCTION

This manual is intended for two audiences. It is intended for persons in the field of art and art education who are interested in characterizing or evaluating esthetic responses. For this reader, the manual may offer some new ideas concerning curriculum and evaluation in art. The manual is also intended for psychologists who wish to characterize and quantify the subjective uncertainty, or complexity, of esthetic responses.

Why is esthetic inquiry an area in which a person can, or should, respond in an uncertain way? Perhaps this question can be answered better by example than by definition.

It takes only a brief incursion into the literature of art history to learn that art is judged by many criteria and valued for a multitude of reasons. Esthetic value is defined in many ways. For example, the impressionist painter Renoir said, "For me, a picture must be pretty, must be a pretty thing, yes, pretty." But Monet, a fellow impressionist, saw painting as the creation of semblances for light and atmosphere through the use of gradations of color and value. Van Gogh used flaming colors

Bette Acuff is Lecturer of Education, Teachers College, Columbia University. Joan Sieber-Suppes is Associate Professor of Psychology, California State University, Hayward.

and strong brush strokes to reveal his own inner agitations and his profound sympathy for the tragic elements in existence. His conception foreshadowed the esthetic of the German Expressionists: the concept of empathy. This esthetic emphasized the revelation of the artist's inner psychic state and the evocation of emotion in the viewer. Kandinsky said in 1912, "Everything is permitted." Abandoning the demands of representation, he created non-objective forms that embodied "spiritual content" (Kandinsky, 1912). Kandinsky believed that the purpose of art was to convey this spiritual content, and that color was a particularly powerful vehicle for evoking spiritual awareness in the spectator.

The components of esthetic properties are many--line, color, shape, light, texture, medium, technique, perspective--but the importance of art is not limited to the success with which they are used. For instance, Elliot (1957) has said that, in many cases, the documentary value of the work of early American artists outweighs its esthetic merit. In short, art is not judged by the extent to which it is decorative background, or even by the extent to which it is esthetically pleasing. An understanding of art requires knowledge of many kinds--technical, historical, and psychological--coupled with one's personal responses. To those who are educated to understand it, art offers a way of reflecting on human existence: "man's hopes and fears, his ambitions and emotions, his religious and political beliefs, his ethics and humanitarianism, his failures and achievements, and his relations to other people and to nature [Simon, 1970, p. ix]."

Understanding or appreciating art, then, might be taken to mean somehow applying to art productions the kinds of knowledge just mentioned. The exact somehow (or somehows, assuming that perceivers of art differ in

the way they appreciate it) is no doubt very complex, defying comprehensive and detailed description. For the instructor who wants to teach students to understand art and to gain personally from their responses to it, there are only intuitive guidelines for teaching and evaluation. The notion of behavioral objectives, or of any objective criterion for judging the adequacy of learning, is relatively new in these realms. Likewise, the psychologist wishing to study the conceptual complexity of a person who is responding to a work of art will find it difficult to discover in the psychological literature any satisfactory conceptual or methodological tools for the task.

Granted, there have been any number of well-thought-out suggestions on teaching art and evaluating students' performance in art (see, for example, "Evaluation of Art Teaching" by the Committee on the Function of Art in General Education, 1939). Likewise, some psychological instruments have been devised to examine some characteristics of persons' responses to art. Child (1962), for example, explored the relationships between personality variables thought to be relevant to esthetic perception in a series of studies with undergraduate college men untrained in art. For two tests of esthetic judgment he found correlations of .32 and .37 with a behavioral measure of tolerance for unrealistic experiences. A verbal measure of tolerance for complexity yielded correlations of .21 and .25. Positive correlations between esthetic judgment and broad, inclusive scanning patterns (as defined by Gardner, 1959), independence of judgment, and regression in service of the ego were found. Positive correlations of .36 and .24 were found for intuition vs. sensation, with intuition defined as an orientation toward understanding an object in full for its own

sake, as opposed to a willingness to tolerate purely external or sensory apprehension of it.

Subsequent studies by Child (1964) with secondary students confirmed positive relationships between the ability to make esthetic judgments and independence of judgment and tolerance of complexity. No relationship between esthetic sensitivity and regression in service of the ego was established.

Barron's (1953) research illustrates the far-reaching relationship between preference for complex art production and other measures of personality. For doctoral candidates and seniors in medical school, respectively, preference for complexity was correlated with measures of IQ .42 and .41; with breadth of interest, .33 and .39; with sense of humor, .39 and .33; and with cathexis of intellectual activity, .42 and .29.

The value of these findings notwithstanding, the existing literature falls short of offering a comprehensive measure of the extent to which persons utilize their relevant knowledge in their perception of art productions. Moreover, it does not offer a model for providing learning experiences that maximize the richness of art experience.

Measuring Response Complexity

Our purpose here is to present a procedure for coding responses to art that we consider a simple but credible way of assessing a person's understanding of art. The measure is objective. It is open-ended in that the individual responds as he wishes to quite general questions:

"How many different things do you actually see in this picture?" "What might this picture be about?" The first question asks for a description of visual cues; the second asks for hypotheses about the significance of the art production. A system for coding responses to each type of question was adopted from the work of Wilson (1966). A list of the categories appears on pages 8 and 146.

The number of an individual's responses in each category is recorded. This information is then entered into a formula, such that the more response categories an individual uses and the more nearly equal his use of each category, the higher his uncertainty score. Thus, a very low score would be earned by an individual who noted many details about color but ignored other cue categories except for a simple remark about texture. A relatively high score on cue attendance would be earned by someone who took note of color, line, surface qualities, literal objects, expressive qualities, pervasive quality, symbolic aspects, etc. A person who uses only a single response category receives a score of 0, irrespective of how many responses he makes in that category. A person who uses every category equally receives the maximum score, even if he uses each category just once. Thus, a score is not based simply on the total number of responses that are made. What earns a high score is the complex response in which many kinds of knowledge are brought to bear. Every response to an art production is codable in this system.

Before describing the coding system in detail, let us discuss the origin of this measure of response complexity, its psychological significance, and its implications for art education. The measure of response complexity used here is derived from communication theory (Shannon &

Weaver, 1949) and is analogous to the information theory measure of uncertainty

$$H = \sum_{i=1}^n p_i \log_2 \frac{1}{p_i},$$

where there is a set of n possible different signals or messages a perceiver might receive.¹ The perceiver of the signals knows how many different kinds of messages he might receive (n) and the probability of receiving each kind of signal (p). Using this formula we calculate the uncertainty of the message. This message reaches a maximum when all the values of p_i are equal, and when they are equal it increases with the number of alternative classes to which the signal could belong. Thus, when a perceiver approaches a source of information that can convey any of the wide range of different points of information, we call the source of the information a high uncertainty source. Psychologists (Berlyne, 1960; Miller, 1956; Broadbent, 1958; Lanzetta, 1963) have, by analogy, developed the concept of subjective (or psychological) uncertainty. The greater the number of kinds of information an individual is prepared to receive, the greater his state of subjective uncertainty, or the more complex his way of perceiving phenomena.

¹ H is the uncertainty score. i represents the individual classes of information that may capture the viewer's attention₁ (for instance, colors, lines, textures, expressive qualities, etc.). $p_i \log_2 \frac{1}{p_i}$ = the probability value of the occurrence of i , based on the total number of categories to which it is possible to attend (i.e., the probability that the viewer will note color as opposed to line or texture, etc., out of a possible 33 categories), multiplied by $\log_2$ of that value.

To calculate the uncertainty score (H) a viewer₁ receives when he evaluates a painting, we sum (Σ) the values of $p_i \log_2 \frac{1}{p_i}$ for all the categories of information to which the viewer has attended (i.e., we sum the values for color, line, texture, etc.).

A table of values of $p_i \log_2 \frac{1}{p_i}$ and a step-by-step procedure for calculating the uncertainty score are presented in Appendix C.

As we remarked earlier, art can convey a wide range of kinds of information. We have partitioned these kinds of information into the categories shown in Table 1. At this point, how many categories of art information exist is problematic. Presumably, all categories could be collapsed into one, termed "attributes of art objects," or expanded indefinitely, depending upon the number of subdivisions one considered appropriate. However, the partitioning illustrated in Table 1 seemed to us most reasonable, since it utilizes those categories salient in contemporary criticism of art, and since it consists of mutually exclusive categories that may be identified reliably by trained observers. Some art productions are more complex than others.

Regarding the perceiver of art, there is, likewise, wide variety in the complexity--the subjective uncertainty--of individuals' perceptual responses to art. Viewers differ in the number of facets of art to which they can respond. Some respond only to the color and form of pictures, for example, while others respond to a far richer set of information. The greater the subjective uncertainty of an individual's response, the closer he approximates our notion of "one who understands art" or gains from art much of what it has to offer.

Increasing Response Complexity

What is the limit to the amount of uncertainty an individual can handle? Miller (1956) presents evidence that persons cannot quickly grasp more than five to nine pieces of information (that is, cannot maintain it in short-term memory) unless the information is "chunked," or organized mnemonically. Individual differences in characteristic level of subjective

CUE-ATTENDANCE CATEGORIES (Primarily Descriptive)

HYPOTHESIS-GENERATION CATEGORIES
(Primarily Interpretive)

VII. MEANING ATTRIBUTES

Literal Reference

(HA) Hypothesis - Action

(HT) Hypothesis - Thoughts

(HS) Hypothesis - Sensations

(HNO) Hypothesis - Nature of
Object

(HC) Hypothesis - Context

Affective Reference

(HAF) Hypothesis - Affect

(HSF) Hypothesis - Subjective
Feeling

Symbolic Reference

(HSA) Hypothesis - Symbolic
Aspect

(HTH) Hypothesis - Thematic

(HF) Hypothesis - Fantasy

VIII. CONTEXTUAL ATTRIBUTES
(HAR) Hypothesis - Artist
(HST) Hypothesis - Style

EVALUATIVE-JUDGMENTAL CATEGORIES
(Primarily Evaluative)

IX. AFFECTIVE, OBJECTIVE RESPONSES

(AJN) Affective Judgment,
Not Supported

(AJS) Affective Judgment,
Supported

(OEN) Objective Evaluation,
Not Supported

(OES) Objective Evaluation,
Supported

uncertainty are experimentally modifiable. By the use of learning paradigms such as imitation (modeling) and operant conditioning, persons can be taught to increase the number of relevant responses they can make to a given stimulus (Maltzman, 1960). For example, an individual might be taught to increase the number of solutions he can generate to problems. Or, he might be taught to increase the number of stimulus attributes he can discern and then to infer relevant solutions or explanations on the basis of these attributes. Persons who have received such training increase their level of pre-decisional information search (Sieber & Lanzetta, 1966).

If persons can be trained to increase the number of responses they make to problems, either by observing others making a large number of responses or by themselves being encouraged to generate many responses, might not the richness of one's perception of art be increased? A recent experiment (Suppes & Acuff, in preparation) has illustrated that responses to art can be enriched in this fashion. In summary, the experiment consisted of discussing paintings in relation to the various categories in Table 1, and organizing the information under these categories (thus providing a mnemonic device for chunking). Children were given practice in viewing, comparing, and discussing a wide range of pictures in terms of these categories. A significant increase in the complexity of student responses was noted.

Thus, this coding system has been used not only to conceptualize the complexity of an individual's responses to art, but to offer a structure and a rationale for a curriculum in art. It is not, however, the purpose of this manual to discuss the research and development that has ensued from this coding system. Rather, it is to provide training in

both the use of the category system and the computation of the uncertainty measure, and to provide evidence concerning the reliability and validity of the measure.

A Rationale for the Category System

Esthetic inquiry. Esthetic inquiry is the mode by which we come to know art forms and to understand their significance. The problem that promotes the inquiry is one of construing meaning, of determining what the presented qualities and relationships of the work denote--those qualities and nuances of experience to which they refer in the ideational and emotional realms. What is experienced in the process is affected by the state of the perceiver. It is relative to his knowledge of art, to his sensitivity and taste, to the amount of information he is able to extract from his confrontation with the work. Whatever meaning the viewer creates--what he knows--is based on what he knows about the work, and about other works of art. Thus, the process of esthetic inquiry requires the perceptual and verbal skills of art criticism, historiography, and philosophy.

In formulating our category system, we have taken the art critic as a model. In the process of conducting his inquiry, the critic attends--he scans the work for visual information and attends to evoked images, emotions, or ideas; he analyzes the relationships between bits of information from both sources; he describes the products of his attention; he interprets by synthesizing his descriptions with some speculations, from which he forms a number of hypotheses about the work's meaning, or its "theme." Finally, he may evaluate the work: he will rate its excellence in terms of certain criteria which he enumerates (Feldman, 1967; Smith, 1968). His hypotheses and his evaluations are validated by referring to

the qualities and configurations presented in the work, by discussing ideas with peers, or by gaining historical information or critical insights from reading or other sources.

Thus, to appreciate a work of art esthetically is to appreciate it as an object whose contemplation is accompanied by a sense of heightened feeling emanating from the qualities embodied in its forms and relationships. It is also to appreciate the work's significance, since it enables us to perceive afresh, or for the first time, particular aspects of reality.

Presentation and representational characteristics of art. The visual art form is a material object that presents a configuration of visual qualities to perception. The presentational character of a painting is what is immediately perceivable: those qualities that call attention to the painting as an object, or to its surface. We perceive visual configurations as angular or sinuous in outline, as composed of open or closed shapes, as flat or three dimensional, as brilliantly colored or subdued in tonality, as simple or complex.

Each of the constituents of a work of art is also representational or referential. The feeling or idea projected through the use of these constituents is the work's representational dimension.

Presentation and representation are related: the qualitative character of the work (its presentation) affects its expressive character (its representation). Presentation is what is displayed; it is what exists in the work by virtue of its unique organization of qualities. Representation is outside the work itself; it is within the perceiver. It is

those referents in human experience that can be associated with the qualities and images displayed by the work.

In our category system, we have conceived of several classes of components that may be perceived: material attributes, sensory attributes, their expressive qualities, and their formal relationships. Material attributes grow out of the physical properties of the materials used and the particular techniques the artist used in transforming the materials into a medium of expression. For example, the impasto surface of a Hans Hofmann painting calls attention to a variety of material attributes. Hofmann's unique and personal style of handling thick paint--sculpting, scraping, and scumbling it--forcefully presents the physical qualities of the materials as a strong expressive component in his work.

Sensory attributes are exemplified by gradations of color intensity; by the structural characteristics of various shapes (i.e., squareness and angularity, or flowing, curved outlines); and by distinctive textural properties such as roughness, softness, and fuzziness. The expressive qualities of sensory attributes are exemplified by the "heaviness" of a dark color, the "pulsating" of a brilliant one, or the "tension" expressed by a group of diagonally intermeshed lines. Formal relationships are arrangements of sensory qualities whose juxtapositions yield the total visual configuration of the work.

These qualities and relationships, as well as subject elements--people, objects, events depicted--are interpreted by the viewer as signs that are vehicles for meaning. These signs can suggest or evoke a concept or feeling, if the conceptions of the interpreter are rich enough to enable him to establish a connection between the pictorial sign and its referent.

Look at the violinist depicted in Picture 1. The animation expressed by the central figure results from the interplay of presented formal relationships and the associations evoked in the perceiver by the subject elements. The particular combination of sensory qualities--bright purple, orange, and green colors; diagonal lines on the coat front; the diagonal tilt of the head, arms, legs, feet, violin, and violin bow--taken together suggest the motion and activity we associate with the playing of a lively tune. The presented relationships represent the sensations of sound, action, vitality, and life. To become aware of the organic relationships between elements of the central figure, cover the orange violin. Notice the changed relationship between the purple and green, and the overall dullness that results from the omission of the orange accent. Not only is the total visual character of the painting altered, but the expressive character is altered as well: the sad-eyed face of the violinist now becomes more dominant, and the feeling evoked is one of melancholy rather than light-hearted animation.

Classifying Responses to Paintings

Complete perception of a painting includes the noting of as many attributes as possible. The astute viewer perceives many patterns (a color pattern, a shape pattern, a line pattern), and responds to the relationships between them. At the same time, he responds with a variety of associations evoked by the representational elements of the painting. A complete synthesis of perceptions and associations with the emotion evoked by that experience constitutes the gestalt that is unique for that person with that painting at that moment.

A painting may be described from the surface outward--that is, from its more concrete aspects (e.g. color, shape) to aspects that "emerge" from its combinations of visual qualities and representations (e.g. symbolism). Statements about the aspects of a painting may be classified. The pattern of classification of a person's statements describes the person's viewing pattern and the kinds of inferences and judgments he makes as a result of his viewing and his past experience. More specifically, a person's statements indicate his focus of attention (the attributes he notes) and his characteristic style of attending (the way he interprets what he notes). They indicate whether he sees a depicted person literally, as a man, woman, or child; expressively, as a device connoting an emotion, such as grief or joy; or symbolically, as representing an idea or complex of ideas, such as peace, justice, or brotherhood. And they show whether the viewer's response is predominately descriptive, interpretive, or evaluative in nature.

Viewers also vary along a simplicity-complexity dimension in verbalizing their perceptions. Some viewers structure their remarks to reflect an overall apprehension of the work's qualities: "I see bright colors." Others name members of a class: "I see red, blue, and green." Still others relate pictorial details or qualities to a class of things, or to an inference about meaning: "I see lots of bright colors: he's used bright yellow, intense blue, and orange-red for the houses, while the animals and people are bright pink. This expresses the quiet tranquillity of village life. Notice the absence of people, the muted colors, the many horizontal lines and shapes, and the careful way the houses and vegetation are drawn. All these tend to convey a sense of stillness and order."



THE GREEN VIOLINIST

Marc Chagall, Contemporary

NEW YORK, SOLOMON R. GUGGENHEIM MUSEUM

CM-246 PUBLISHED AND PRINTED BY
BARTON-COTTON, INC., OF BALTIMORE

Keeping in mind these ways of characterizing responses to art, we have formulated a category system based on five dimensions of response:

1. The kinds of attributes noted (color, line, objects, expressive qualities).
2. The kinds of information the viewer perceives as conveyed by the attributes (literal, expressive, symbolic).
3. The way the viewer uses this information (for description, interpretation, evaluation).
4. The emotional tone that the viewer perceives as embodied in the configuration or as evoked in himself.
5. The complexity of the viewer's response.

Descriptive (cue attendance) categories are ordered as if the viewer were noting characteristics of the painting from its "skin" outward: Material Attributes, Literal Attributes, Sensory Attributes, Organizational Attributes, and Expressive Attributes. The two Contextual Attributes categories classify remarks that display a viewer's knowledge of the cultural context of the work.

Interpretive (hypothesis generation) categories are ordered according to the predominant mode of reference the viewer employs in synthesizing visual cues: the literal mode, the affective mode, or the symbolic mode. Hypothetical statements incorporating historical information are included next under "Contextual Attributes."

Evaluative categories are ordered with respect to whether a judgment is subjective or objective, and whether the evaluation is supported or not supported by objective criteria.

Responses are categorized as either simple or complex. For example, "I see lots of big shapes, and many bright colors" would be a simple response. On the other hand, "This composition makes use of large shapes

contrasted with a variety of small ones--notice the small figures at the bottom, in the central area, and at the top. They function by contrast to make the large angular shapes of the central figure stand out forcefully," would be a complex response.

Some categories of response are superseded by others in certain instances. Examples of the coding procedure for these instances are given in the general explanation accompanying the particular categories. Some complex responses are double coded, i.e. coded for more than one category. Double coding is explained under the Literal Object category and the Literal Reference category.

EXPLANATION OF FORMAT AND KEY CONCEPTS

The Programmed Format

The rest of this manual is programmed. The key ideas presented in the text are followed by exercises. You, the reader, are expected to do the exercises and to choose the answer you think is correct. The page that follows the exercise shows correct responses and explains how they were selected. If your choice is not correct, you will be directed to reread a previous explanatory section.

For example, a statement may be made about an artist whose painting has been shown:

Jackson Pollock was a painter of the abstract-expressionist movement who was dubbed by critics the "father of action painting."

ENCIRCLE THE NUMBER OF YOUR CHOICE.

1. False
2. True
3. I don't know. It is possible that I could find out if I could read some biographical information about the artist.

GO TO THE NEXT PAGE TO SEE IF YOUR CHOICE IS CORRECT.

IF YOU ENCIRCLED:

1. No. If you had more information about Pollock, you would know that this statement is true. Had you been given biographical information and still made this choice, you would be instructed to reread the information. Since you were not given this information, and you did not have enough information to select answer two, the correct answer for you is answer three. Read the entry for answer three.
2. Right! You must be a connoisseur of modern art. Read the entry for answer three and then go on to the next page.
3. Excellent! You have given the appropriate response to a situation in which you don't possess enough information to know if a statement is true or false. You have expressed "warranted uncertainty." (See the next page for a definition of "warranted uncertainty.")

NOW YOU SEE HOW THE PROGRAM WORKS. YOU WILL FIND FURTHER EXAMPLES IN THE NEXT SECTION.

Key Concepts

Uncertainty. The manual was designed as part of a program to help teachers and children deal with uncertainty. The term "uncertainty" refers to the state of an individual who has either no immediate response, or a variety of alternative responses from which to choose when he is confronted with an unfamiliar, ambiguous, or problematic situation. The value of developing strategies for dealing with uncertainty is readily apparent in view of the major social problems and the rapid changes that contribute to the complexity of life today. A person not only must deal with much information in making decisions, he must see how his decisions are interrelated, and must also consider the effect of new information on his prior decisions.

Warranted uncertainty. The distinguishing of problematic from non-problematic situations, and the expression of appropriate uncertainty with regard to problematic situations is termed "warranted uncertainty." An example of the expression of warranted uncertainty about the painting shown in Picture 1, "The Green Violinist," would be: "I don't know what the artist means to communicate in this picture. I can't figure out why the man is flying above the large figure, or why the violinist appears to be suspended above the house. I suppose the artist could be trying to make a comment on folk culture, or perhaps he is attempting to illustrate an old folk saying. I wonder where I could find out what this painting might mean?"

Notice that the expression of warranted uncertainty has three stages. First, the individual recognizes a problem for which he does not have an immediate response: "I don't know what the artist means. . . ."

Second, he entertains several alternative explanations or interpretations: "I suppose he could be trying to. . . ." Third, he is willing to search for more information to arrive at a solution: "I wonder where I could find. . . ."

Cue attending and hypothesis generation. Two of the behaviors illustrated above contribute to the development of subjective response uncertainty. These are attending to cues and generating hypotheses. When a person seeks information about the situation directly or from memory, he is said to be attending to cues. When he makes a tentative, plausible explanation about the meaning of a particular set of cues he is generating a hypothesis. The ability to attend to cues and to generate hypotheses is essential to understanding a work of art.

The following descriptive remarks about "The Green Violinist" indicate that an individual is attending to cues: "I see a variety of grayed colors used in the background. They contrast with the dark purple coat and hat of the violinist in the foreground." These observations serve as a base for making inferences and judgments. Statements that propose explanations or construe meanings are hypotheses: For example, "I think the artist is trying to create a mood of nostalgia for village life. The violinist is playing the 'Song of Life,' which is both melancholy and gay. The actions of the people and animals show some of life's homey and mundane aspects."

Evaluation. Evaluation is a critical process that yields a judgment about (a) the significance of the cues, (b) the adequacy of various possible solutions and (c) the value of the art object as a solution to

an artistic problem. In the last case, the value is judged according to some particular criteria of excellence. Examples of the three types of evaluation follow.

"I see two floating figures, a misty background painted in soft colors, strange size relationships, and unnatural colors used for the hands and face of the violinist. These elements give the painting a dream-like quality."

"I don't think that what I just said is a good explanation of the meaning of the painting, because it does not account for what the man at the top is doing."

"I think this is an excellent painting because the distribution of warm and cool colors creates the sensation of vibrant life suggested by the action of the figures. Bold and energetic outlines delineate the figures. The artist has integrated color relationships and line qualities to enhance his chosen theme of life's vitality and energy. It is the coherence of sensory and representational elements that is the mark of a successful painting."

TO SEE WHETHER YOU UNDERSTAND THE CONCEPTS PRESENTED ABOVE, DO THE EXERCISES THAT FOLLOW. THEY ARE A SAMPLE OF THE PROGRAMMED FORMAT.

LOOK AT PICTURE 1, "THE GREEN VIOLINIST." SEE HOW THE ARTIST APPLIED THE PAINT IN THE BACKGROUND. NOW READ THE STATEMENTS BELOW. DECIDE WHICH ONE EXPRESSES WARRANTED UNCERTAINTY. ENCIRCLE THE NUMBER OF YOUR CHOICE.

1. "It's obvious the artist used a dry brush technique in applying oil paint in quick strokes to create a rough texture."
2. "I'm not sure how the artist applied the paint. It looks as if he wiped the paint on with a soft cloth in some parts of the sky, but in places in the center of the painting it looks as if he used a stiff-bristle brush and stroked the paint on while the brush was fairly dry. I'm not sure whether he used oil or tempera. The surface isn't shiny, as sometimes happens when oil is used. I would have to look at the original painting or read about the artist's technique before I could say for sure."
3. "I think the artist used oil paint. He used grayed colors and applied them with quick strokes of a fairly well loaded, stiff-bristle brush."

WHEN YOU HAVE CHOSEN YOUR ANSWER, GO ON TO THE NEXT PAGE.

IF YOU ENCIRCLED:

1. Not so fast. Are you sure this is the only way the artist could have achieved the effect he did? The person who gave answer one has not observed the painting carefully enough to be able to make such a definite statement about the technique and medium used by the artist. Reread the explanation of warranted uncertainty on page then try again.
2. Very good! You are right. Notice that the expression of warranted uncertainty is accompanied not only by a statement indicating that the observer is not yet sure of an answer, but also by speculations indicating that he is willing to entertain a variety of ideas about answers ("It looks as if. . ."). This observer is also ready to search for more information before committing himself to a final answer ("I would have to look. . .").
3. Both of these statements could be true. However, the observer doesn't tell us what he sees in the painting which makes him think oil paint or a stiff-bristle brush was used. He has not indicated the process of basing inferences on cues taken from visual information. Reread the explanation and example of warranted uncertainty on pages 19 and 20. Then try the exercise on the previous page again.

DID YOU CHOOSE CORRECTLY? GO ON TO THE NEXT PAGE.

THE STATEMENTS BELOW APPLY TO "THE GREEN VIOLINIST." DECIDE WHICH ARE EXAMPLES OF CUE ATTENDING AND/OR HYPOTHESIS GENERATION. IN THE SPACE PROVIDED AT THE LEFT, WRITE THE ABBREVIATED FORM OF YOUR ANSWER.

CA = Cue Attending

HG = Hypothesis Generation

1. _____ "I dig this painting! It really makes me feel happy!"
2. _____ "The artist makes much use of curved and straight lines. Both kinds of lines form a variety of triangular shapes. I see a pattern of triangles at the bottom--the roofs; in the center--the shapes within the purple coat; and at the top--the roofs."
3. _____ "This painting is about someone's memories of childhood in a village. The images are jumbled together, as in a dream or memory, with no regard for naturalistic size relationships. I think it's a happy memory or dream--look at the man flying through the air as if he hadn't a care in the world, and the perky dog who looks as if he were smiling at the violinist."
4. _____ "I think this is a surrealistic painting about the artist's childhood memories."

HAVE YOU MADE YOUR SELECTIONS? CHECK YOUR ANSWERS ON THE NEXT PAGE.

1. This is neither cue attending nor hypothesis generation. It is a subjective expression of the feelings of the viewer. Reread the cue-attending and hypothesis-generation examples, then try again.
2. CA. This person is cue attending. He has noted the type of straight and curved linear elements used to structure the painting. He has also noted some of the shape relationships which result from the combination of these elements.
3. CA, HG. This person is cue attending and hypothesizing. He makes inferences about meaning ("This painting is about someone's memories. . . . I think it's a happy memory. . . ."). He supports his inferences by describing the cues that contributed to such interpretations ("images are jumbled together . . . man flying through the air. . . ."). Try to find an example of cue attendance alone or hypothesis generation alone if you have not yet done so.
4. HG. This person is hypothesizing about meaning while identifying style. He has brought his past experience with surrealist paintings to bear upon his perception of Chagall's painting.

DID YOU FIND AN EXAMPLE OF BOTH CUE ATTENDANCE AND HYPOTHESIS GENERATION? GOOD! NOW THAT YOU ARE FAMILIAR WITH THE KEY CONCEPTS, YOU ARE READY TO LEARN HOW TO CODE DESCRIPTIVE STATEMENTS INTO THE CATEGORY SYSTEM. IN THE SECTION THAT FOLLOWS YOU WILL FIND CUE ATTENDANCE CATEGORIES AND PRACTICE EXERCISES THAT WILL ENABLE YOU TO DEVELOP YOUR CODING SKILL.

CUE-ATTENDANCE CATEGORIES

I. Material Attributes

This category includes remarks about the materials used, the method of application or arrangement of the materials, and the visual and tactile qualities that result from the combination of materials and technique.

(M) Materials. The M coding is used for statements that refer to the materials used in the construction of the work, or that classify the total work in terms of materials or medium used.

"he used cut-outs here . . . this is an oil painting . . . a watercolor . . . pencil drawing . . . paper . . . paint . . . transparent medium . . . opaque."

(T) Technique. The T coding is used for statements that indicate awareness of the manner of application or the process employed when the materials were combined.

(in terms of media) "the paint was dabbed on in little dots . . . painted with thin paint . . . first he drew the shapes, then he painted them in very carefully . . . brushed on . . . put on with a knife. . . ."

(in terms of formal devices) "made the shapes overlap . . . juxtaposed . . . placed side-by-side . . . close-up . . . side-view or profile . . . this figure has been cut off by the edge of the picture . . . the wall comes into the picture on this side, and goes out on the other side . . . the chair cuts the painting into two parts. . . ."

(SQ) Surface quality. The SQ coding is used for statements that indicate awareness of the surface effect achieved by the combination of materials and techniques, either in terms of the textural quality of the total surface, or in terms of the textural qualities represented in specific objects or areas.

(total painting surface) "looks pebbly . . . grainy . . . velvety . . . shiny and smooth . . . dull and flat . . ."

rough . . . hard . . . soft . . . matt . . . glossy . . .
 encrusted . . . relief . . . embossed . . . dirty. . . ."

(areas or objects depicted) "the sky has a texture that
 looks rough . . . the waves look rough . . . the face is
 made of wood . . . looks like leather . . . velvet coat . . .
 silky dress . . . designs carved into that piece of wood
 . . . pattern on the wall . . . rough bark on the tree. . . ."

Frequently a viewer will use adjectives that refer to both surface qualities and sensory attributes, such as color and line. The coding of such responses is explained later.

II. Literal Attributes

This category covers statements about the subject matter depicted, with no indication of any expressive function in the work. Objects and environments are interpreted merely as literal representations of their counterparts in life, not as symbolic of a mood or an abstraction.

(LO) Literal object. The LO coding is used for statements that name the objects or people depicted.

"many men . . . children . . . some hats . . . a coat . . .
 tree . . . hills . . . sky . . . she's wearing a brown hat
 . . . a man in the front. . . ."

(LC) Literal context. The LC coding is used for statements in which context is regarded as a literal record that places the subject matter with regard to time, location, events, or situations. Such statements indicate that the viewer does not realize that depicted content may function as an artistic device to symbolize ideas or feelings.

"it's in England . . . long ago . . . a city like Boston or
 Chicago . . . at night . . . in winter . . . it's windy . . .
 cloudy . . . a storm . . . sunny day . . . a village scene
 . . . an accident . . . a movie. . . ."



MANCHESTER VALLEY (1914-1918)

Joseph Pickett, Contemporary

CM-154 PUBLISHED AND PRINTED BY
BARTON-COTTON, INC., OF BALTIMORE

MUSEUM OF MODERN ART, NEW YORK
(GIFT OF ABBY ALDRICH ROCKEFELLER)

THE STATEMENTS BELOW ARE EXAMPLES OF THE TYPES OF CUE ATTENDING DESCRIBED THIS FAR. THEY REFER TO PICTURE 2, "MANCHESTER VALLEY." TO THE LEFT OF EACH REMARK, WRITE THE ABBREVIATION FOR THE CATEGORY IN WHICH YOU WOULD CLASSIFY EACH REMARK.

M = Material

SQ = Surface Quality

LC = Literal Context

T = Technique

LO = Literal Object

_____ "I think the artist used tempera paints."

_____ "There are trees, houses, railroad tracks, a river, a flag."

_____ "It's a scene in a small village."

_____ "There is a textural feeling to the painting."

_____ "It looks as though he brushed the sky on with big, swoopy
strokes of the brush."

(SHOW TOTALS BELOW THIS LINE.)

CHECK YOUR ANSWERS ON THE NEXT PAGE.

- M "I think the artist used tempera paints."
(Material: Tempera is a material.)
- LO "There are trees, houses, railroad tracks, a river, a flag."
(Literal Object: The respondent has named actual objects.)
- LC "It's a scene in a small village."
(Literal Context: A location is named.)
- SQ "There is a textural feeling to the painting."
(Surface Quality: A total surface effect is noted.)
- T "It looks as though he brushed the sky on with big, swoopy strokes of the brush."
(Technique: The manner of paint application is described.)

NOW YOU ARE READY TO TACKLE A MORE COMPLEX TASK. SINCE PEOPLE FREQUENTLY GIVE MUCH MORE ELABORATE DESCRIPTIONS THAN THE ONES YOU HAVE JUST READ, WE DEvised A MEANS OF GIVING SOME CREDIT TO PEOPLE WHO ARE "COMPLEX CUE ATTENDERS."

AN EXPLANATION OF THIS CODING PROCEDURE FOLLOWS.

Procedures for Coding Simple and Complex Responses

1. Break the protocol into sentences or phrases that appear to be coherent units of thought. (The term protocol refers to the written transcription of all spoken remarks made by a person during an interview or conversation. In this manual, a protocol consists of the transcription of the remarks made about a specific picture by a subject.) The following protocol may be divided into three major units by using brackets at the margin and large parentheses within the body of the text:

{ "There are trees, houses, railroad tracks, a river, a flag.)
 { The artist has painted a dull gray sky to show that "it's a
 { blustery Spring day.) (I see lots of buildings and a little
 { train puffing along. . . .")

2. Next, break each sentence or phrase into coding units, by using short slash marks:

{ "There are trees,/houses,/railroad tracks,/a river,/a flag.)
 { The artist has painted a dull gray/sky/to show that it's a
 { blustery Spring day.) (I see lots of buildings/and a little
 { train puffing along. . . .")

A coding unit may consist of a noun, a noun and qualifiers, an adverbial phrase, or a short complete sentence (as in the compound sentence, "I see lots of buildings. . . ." written above). These divisions will vary in length according to the character of the response. If a response is a simple one, enumerating such concrete categories as Literal Object, Color, Line, or Shape, the coding units will be short ones--usually a noun and its accompanying adjective or article. If the response is a complex one, referring to abstract or relational categories such as Comparative Relations,

Principle of Organization, or Pervasive Quality, the coding units are more likely to be composed of whole phrases. Examples of coding complex cue-attendance responses are given later in this section. Procedures for coding complex hypotheses are given in the section on hypothesis generation categories.

3. Write category abbreviations above the coding units: (Note: "C" denotes color.)

^{LO} ^{LO} ^{LO} ^{LO} ^{LO}
 { "There are trees, / houses, / railroad tracks, / a river, / a flag.)
 { The artist has painted a dull ^Cgray / ^{LO}sky / to show that it's a
 { ^{LC}blustery Spring day.) (I see lots of buildings / ^{LO}and a little
 { ^{LO}train puffing along. . . .")

4. Write the totals for each category for each thought unit in the margin next to the bracket for that section:

^{LO} ^{LO} ^{LO} ^{LO} ^{LO}
 5LO { "There are trees, / houses, / railroad tracks, / a river, / a flag.)
 10, C, LC { The artist has painted a dull ^Cgray / ^{LO}sky / to show that it's a
 { ^{LC}blustery Spring day.) (I see lots of buildings / ^{LO}and a little
 2LO { ^{LO}train puffing along. . . .")

5. Total the number of times each category is mentioned in the entire protocol:

^{LO} ^{LO} ^{LO} ^{LO} ^{LO}
 5LO { "There are trees, / houses, / railroad tracks, / a river, / a flag.)
 10, C, LC { The artist has painted a dull ^Cgray / ^{LO}sky / to show that it's a
 { ^{LC}blustery Spring day.) (I see lots of buildings / ^{LO}and a little
 2LO { ^{LO}train puffing along. . . .")

8LO
 LC
 C

6. Record the totals on a tally sheet. There is a sample tally sheet in Appendix B. With these data you can compute the viewer's uncertainty score.

Simple cue attend. Sometimes a person describes what he sees in considerable detail, using adjectives and auxiliary phrases: that is, he elaborates his enumeration of the things he notices. The elaboration may be analyzed into component categories, coded, and tallied in the simple column for each relevant category (see tally sheets in Appendix C).

C, ^CLO "a gray/sky . . ."

LO, ^{LO}LC "the man/in the village ^{LC} scene . . ."

2LO, C "a man/^{LO}wearing a green/^Csuit ^{LO} . . ."

C, ^CSQ "I see a lot of bright colors/^{SQ}and rough surfaces . . ."

3 C (Notice that the number of simple cues is totaled in the
4 LO left margin. Numbers appearing before the category code
LC indicate the number of simple cues. The code with no number
SQ before it represents one simple cue.)

Complex cue attend. These kinds of responses indicate that a person can articulate conceptual connections between pictorial elements and their relationships. Complexity points are given only when the elaboration mentions pictorial elements that illustrate or refer to the main category. Two examples of complex cue attends follow:

Type A: Names and differentiates a class. When a person names a class of objects, and then differentiates or elaborates the class by pointing out examples of that class represented in the painting, the following procedure is followed: give a simple point to the class reference and complexity points for the pictorial references. Numbers that appear in parentheses after the category code indicate complexity points for a complex cue attend.

LO(3) "I see three ^{LO} people . . . / two ⁽²⁾ boys listening / and a ⁽¹⁾ man . . ."

as opposed to:

3LO "I see three ^{3LO} people . . ." (simple class reference)

or:

LO "I see ^{LO} people . . ." (simple class reference)

A more complex example of the same type of response is:

LO(7) { "I see lots of buildings ^{LO} / there's a large ⁽¹⁾ building to the
 6C { right, / a little green ^C ⁽¹⁾ house to the left, / two ^{2C} ⁽²⁾ red houses in
 2SQ { the lower center, / a small ^C ⁽¹⁾ yellow / house / and two ^{2C} ⁽²⁾ gray / brick /
 (2) buildings in front. . . ."

(The totals at the left mean:

LO(7) 1 simple LO, with 7 complexity points
 6C, 2SQ 6 simple C, 2 simple SQ)

To review: The numbers before the category code indicate the number of simple points for the category; the numbers in parentheses after the category code indicate the number of complexity points for the category.

Type B: Names a class, cites pictorial instances from other classes.

When a response names a class, then elaborates the first class named by citing pictorial instances from other classes, the elaborations are double coded as follows:

SQ(5) { "Everything has a texture: ^{SQ} / the ⁽¹⁾ LO rocks / and the ⁽¹⁾ LO water, / and the
 5LO, C { ⁽¹⁾ LO sky; / the ^C / tree ⁽¹⁾ LO leaves, / the ⁽¹⁾ LO grass. . . ."

Notice that the LO's mentioned are coded as simple points in their own category and coded as complexity points for the SQ category, as they not only represent objects, but also exemplify the texture mentioned at the beginning of the response.

The numbers in parentheses precede the LO code, and follow the category to which they refer, e.g., SQ. This rule is always followed:

complexity points in parentheses follow the category to which they refer,
whether noted in the margin, or in the body of the text being coded.

FOR PRACTICE IN CODING, GO TO THE NEXT PAGE.

CODE THE FOLLOWING STATEMENTS ABOUT PICTURE 2, "MANCHESTER VALLEY," USING THE CODING PROCEDURE DESCRIBED ON THE PRECEDING PAGES. REMEMBER TO DIVIDE THE PROTOCOL INTO THOUGHT UNITS, USING BRACKETS AND PARENTHESES. THEN BREAK THOUGHT UNITS INTO CODING UNITS, USING SLASH MARKS. WRITE THE CATEGORY ABBREVIATION ABOVE EACH CODING UNIT. WRITE TOTALS FOR EACH CATEGORY TO THE LEFT OF THE BRACKET FOR EACH THOUGHT UNIT. TOTAL THE POINTS FOR EACH CATEGORY FOR THE ENTIRE PROTOCOL UNDER THE LINE AT THE BOTTOM.

M = Material	SQ = Surface Quality	LC = Literal Context
T = Technique	LO = Literal Object	

"This is a little village scene."

"The picture has lots of pattern and texture: the tree branches form a wavy pattern; the fences, railroad ties and roofs make another pattern."

"The water looks frothy to the right: you can see little ripples on the surface; but it's smooth under the bridge--you can see reflections and it looks shiny."

(TOTALS)

GO TO THE NEXT PAGE TO CHECK YOUR ACCURACY.

LC { "This is a little village scene.")

(Literal Context: A location is named, with no recognition of metaphorical function.)

2 SQ(4) { "The picture has lots of pattern^{SQ}/and texture^{SQ}:/ the tree branches^{(1) LO}
 4 LO { form a wavy pattern,/and the fences^{(1) LO},/railroad ties^{(1) LO},/and
 (1) LO { roofs make another pattern.")

(Coded as 2 SQ, since pattern and texture are not synonymous in Picture 2. This statement explicitly says that the tree branches form one pattern, while the three other types of objects form another. The LO's that are the pictorial instances of pattern (SQ) are double coded in the LO category.)

3 SQ(2) { "The water^{LO}/looks frothy^{SQ} on the right:/ you can see little
 (1) LO { ripples on the surface;/but it's smooth^{SQ}/under the bridge--/
 4 LO { you can see reflections^{(1) LO}/and it looks shiny.")

(This is a little complicated. In the elaboration, "you can see little ripples . . .," the word "ripples" is cited as pictorial evidence to support the classification of the surface quality, "frothy." "Ripples" is double coded--as a complexity point for SQ, and as a simple LO point. Another adjective, "smooth," refers to a different surface quality of the water, and is given an SQ point. "Reflections" is an LO--pictorial evidence for the SQ, "smooth"--and is double coded as a simple LO point and as a complexity point for SQ. "Shiny" is coded as a simple SQ, since it is a parallel adjective to the adjective "smooth.")

(TOTALS)

HOW DID YOU DO? A BIT CONFUSED? AS YOU PRACTICE, YOU WILL BECOME MORE EXPERT. IF YOU MISSED MORE THAN THREE CODINGS, HOWEVER, YOU SHOULD RE-READ THE PAGES THAT EXPLAIN THE CODING PROCEDURE. CORRECT YOUR ERRORS, THEN GO ON TO THE NEXT PAGE.

III. Sensory Attributes

This category refers to formal or plastic elements used. The qualities referred to are visual (presentational) rather than expressive (representational). However, statements about sensory attributes may often include words that indicate awareness of the surface properties or expressive character of the attributes. When a person mentions the expressive or surface qualities possessed by a sensory attribute, credit is given by coding the remark in the appropriate category. This procedure is explained in the following pages.

(C) Color. Statements or words which refer to primary or secondary characteristics of color are coded C. The primary characteristics of color are hue, value, and saturation.

Hue: the basic color name.

I see blue . . . the house is yellow-orange . . . many colors
. . . a few colors. . . .

Value: the lightness or darkness of a hue; tints and shades.

this is all light yellow and orange . . . a dark blue . . .
tints of red . . . shades of brown . . . tones of green . . .
pale green. . . .

Saturation: the amount of a basic hue in a particular color mixture.

everything is done in bright colors . . . it's dull . . . not
very bright colors . . . this is grayed . . . very muted hues
. . . an intense yellow. . . .

GO TO THE NEXT PAGE TO PRACTICE COLOR CODING.

CODE THESE STATEMENTS ABOUT PICTURE 2, "MANCHESTER VALLEY." FIRST, READ THE WHOLE PROTOCOL THROUGH TO GET AN IDEA OF WHICH GROUPS OF SENTENCES SEEM TO BELONG TOGETHER--THAT IS, WHICH SENTENCES SEEM TO REFER TO THE SAME CATEGORY. THIS GROUPING OF SENTENCES IS HELPFUL AS A PRELIMINARY STEP TO CODING, ESPECIALLY IF THE SENTENCES ARE COMPLEX, REQUIRING DOUBLE CODING. REREAD. BREAK EACH SENTENCE OR GROUP OF SENTENCES INTO CODING UNITS, USING SLASH MARKS. WRITE CATEGORY CODES ABOVE THE CODING UNITS. WRITE THE TOTALS FOR EACH CATEGORY TO THE LEFT OF EACH SENTENCE OR GROUP OF SENTENCES. TOTAL THE CODE POINTS FOR EACH CATEGORY AT THE BOTTOM.

M = Material

C = Color

T = Technique

LO = Literal Object

SQ = Surface Quality

LC = Literal Context

"I see lots of greens: the middle is yellow-green, the hills in the back are dark green. The trees are a yellow-green tint, while the train and the field are blue-green.

The river bank and the trees, roofs, and fences are all dark. The large house is mustard-green color. It looks like brick; so do the two red houses."

(TOTALS)

GO TO THE NEXT PAGE.

^C
 C(5) { "I see lots of greens: / the middle is yellow-green, / the
 4LO ^{LO} hills in the back are dark ⁽¹⁾ green. / The trees ^{LO} are a yellow-
⁽¹⁾ green tint, / while the train and the field are blue-green.) ⁽²⁾

(Simple C point is used for the class reference, "greens." All other mentions of colors--"yellow-green" (hue), "dark-green" (value), "yellow-green tint" (value), etc.--are coded as color complexity points. Pictorial references to "hills," "trees," etc. are coded as simple LO points.)

^{(1) LO} ^{(1) LO} ^{(1) LO} ^{(1) LO}
 C(4) { The river bank / and the trees, / roofs, / and fences / are all
 4LO ^C dark.)

(Notice the structure of this sentence. The color reference is at the end of the sentence, and the pictorial references all precede it. Complexity points are given for all pictorial references which refer to "dark.")

^{LO} ^C ^{3SQ}
 3LO { The large house / is mustard-green color. / It looks like brick; /
 3C, 3SQ ^{2C} ^{2LO} so do the two red / houses. "

(The sentence is easy: a simple LO and a simple C coding. Two color and two surface quality points are given for the reference to the two houses.)

5C(9) (TOTALS)

11LO

3SQ

IF YOU MADE MORE THAN THREE CODING ERRORS, REREAD THE SECTION ON COLOR CODING BEFORE GOING ON TO THE NEXT PAGE.

- (C) Color. The secondary characteristics of color are quality, temperature, distance, and weight.

Adjectives are frequently used with color words which describe the surface qualities or expressive qualities of the color mentioned. In this manual, surface quality refers to the physical appearance of the hue--an appearance associated with a tactile sensation, or with the reflection or absorption of light by the hue. Expressive quality refers to physical sensations, spatial placement, or emotional states associated with a particular hue.

Quality: the effect of the medium used on the appearance of the hue.

"the red^C/is dry^{SQ}/and chalky^{SQ} . . . green^C/looks juicy^{SQ} . . . yellow^C/shimmers^{SQ} . . . a shiny^{SQ}/blue^C . . . a wet^{SQ}/pink^C . . ."

Temperature: the appearance of warmth or coolness of the hue as it appears in the context of other hues used in the composition.

"cool^{EQ}/blue^C . . . violet^C/looks hot^{EQ} . . . red^C/is flaming^{EQ} . . . fiery^{EQ} . . . warm^{EQ}/yellow^C . . . icy^{EQ}/blue^C . . ."

Distance: the apparent placement in depth as a result of the hue. Warm or bright hues tend to advance visually; cool or dull hues tend to recede. Dark or light values may advance or recede, depending upon their visual context. When the effect of depth due to color differences is indicated, the remark should be coded as follows:

"the red^C/building^{LO}/looks close up^{EQ} . . . blue^C/sky^{LO}/looks like it's far away^{EQ} . . . yellow^C/looks like it's in front^{EQ} . . . the orange^C comes out^{EQ} at you. . ."

Weight: the visual weight expressed by a hue by virtue of its value or opacity. Dark or opaque hues may appear to be more solid than others, while light or transparent hues appear to be vaporous and light weight.

"The heavy^{EQ}/brown^C in the corner . . . the misty^{EQ}/blue^C/looks like

it's floating . . . the yellow^C/looks filmy,^{EQ}/like it's a thin^{LO}
veil/blowing in the breeze^{LO}. . . ."

GO ON TO THE NEXT PAGE FOR PRACTICE IN CODING SURFACE AND EXPRESSIVE
QUALITIES ASSOCIATED WITH COLOR.

THESE STATEMENTS REFER TO PICTURE 2, "MANCHESTER VALLEY." SOME REMARKS INCLUDE MENTIONS OF EXPRESSIVE QUALITIES; OTHERS MENTION SURFACE QUALITIES. BREAK THE STATEMENTS INTO THOUGHT UNITS AND CODE THEM.

M = Material

LO = Literal Object

T = Technique

C = Color

SQ = Surface Quality

EQ = Expressive Quality

"The river is warm looking: it looks very tranquil under the bridge. The gray above the green house to the left is rough--looks rocky or gravelly. So does the patch of brownish green to the right above the train."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

2LO, 2EQ { "The river^{LO}/is warm looking^{EQ}; /it looks very tranquil^{EQ}/under the
bridge.")

("Warm looking" describes the appearance of temperature of the river surface; therefore, we code it EQ. "Tranquil" refers to an emotional state associated with the appearance of the river surface; therefore, we code it EQ.)

2C, LO { "The gray^C/above the green^C/house to the left^{LO}/is rough--looks
3SQ { SQ^{SQ}/or gravelly.")

("Rough," "rocky," and "gravelly" are adjectives referring to surface qualities, therefore, we code all three as simple SQ.)

SQ, 2LO { "So does the patch^{SQ/LO}/of brownish green^C to the right/above the
C { LO
train.")

(We infer from the foregoing sentence that the speaker means the patch of brownish green is also rough; therefore, we give an SQ point for patch, while classifying it LO.)

5LO (TOTALS)
2EQ
3C
4SQ

NOW LET'S REVIEW THE DIFFERENCE BETWEEN SIMPLE AND COMPLEX CUE ATTENDS.
GO ON TO THE NEXT PAGE FOR SOME PRACTICE.

THE FOLLOWING STATEMENTS REFER TO "MANCHESTER VALLEY." SOME ARE SIMPLE CUE ATTENDS; OTHERS ARE COMPLEX. REMEMBER TO DOUBLE CODE COMPLEX STATEMENTS, USING THE PROCEDURE EXPLAINED PREVIOUSLY.

M = Material

C = Color

T = Technique

SQ = Surface Quality

LO = Literal Object

EQ = Expressive Quality

LC = Literal Context

"I see red, lots of greens, blacks, and yellow-greens."

"I see greens on the trees, grass, houses, and the train."

"There is much pattern; the trees create one type of pattern, while the houses create another type of pattern."

"I see lots of objects: houses, trees, train, a bridge, rocks."

"Some red houses, a light-colored river with dark banks, lots of green hills."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

4C { "I see red,^C/lots of greens,^C/black,^C/and yellow-greens.^C" }

(These are coded as a simple cue attend which mentions isolated color areas.)

C(4) { "I see greens^C/on the trees,^{(1) LO}/grass,^{(1) LO}/houses,^{(1) LO}/and the train.^{(1) LO}" }

4LO

(This is a complex cue attend in which a class is named and differentiated, citing pictorial evidence of the literal object category to illustrate the class.)

SQ(2) { "There is much pattern;^{SQ}/the trees^{(1) LO} create one type of pattern,^{(1) LO}/

2 LO

while the houses^{(1) LO} create another type of pattern." }

(This is a complex cue attend in which a class is named, and pictorial instances of another class are cited.)

LO(5) { "I see lots of objects:^{LO}/ houses,⁽¹⁾/ trees,⁽¹⁾/ train,⁽¹⁾/ a bridge,⁽¹⁾/ rocks.⁽¹⁾" }

(This is a complex cue attend in which a class is named and differentiated.)

4C { "Some red^C/houses,^{LO}/a light-colored^C/river,^{LO}/with dark^C/banks,^{LO}/

4LO

lots of green^C/hills.^{LO}" }

(This is a simple cue attend which mentions several different categories.)

9C(4) (TOTALS)

11 LO(5)

SQ(2)

GO TO THE NEXT PAGE FOR A NEW CATEGORY OF SENSORY ATTRIBUTES.

(L) Line. The L coding is used for statements which indicate an awareness of line as an identifiable element in the composition, separate from the shape it delineates, and for statements which indicate awareness of attitude, degree of curvature, and the length or the width of line.

Contour or boundary awareness:

"the outline is . . . the edge of the shape is . . . is outlined in . . . edge stands out. . . ."

Attitude of line:

"he used horizontal . . . vertical . . . diagonal . . . lines. . . ."

Degree of curvature:

"the house is made of straight lines . . . many curved lines . . . swervy lines . . . swirls . . . zig-zag lines. . . ."

Length, width variation:

"lots of little short lines . . . thick . . . stubby . . . slender . . . lines. . . ."

TURN TO THE NEXT PAGE FOR PRACTICE IN CODING.

THE FOLLOWING STATEMENTS ARE MADE ABOUT "MANCHESTER VALLEY." DIVIDE EACH INTO CODING UNITS. CODE, AND ADD THE CODING POINTS.

M = Material

LC = Literal Context

T = Technique

L = Line

LO = Literal Object

C = Color

"I see a lot of vertical and horizontal lines in this painting: the trees, the houses and their details, the fence, bridge, and the train."

"There is a great variety of line: thick and thin lines used for the trees; lines of varying length; some curved and some straight."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

2L(6) { "I see a lot of vertical^L and horizontal^L lines in this painting:
 6 LO { the trees,^{(1) LO} / the houses,^{(1) LO} / and their details,^{(1) LO} / the fence,^{(1) LO} / bridge,^{(1) LO} /
 and the train.^{(1) LO}"})

(The class references, "vertical and horizontal lines," are exemplified by the pictorial references to six literal objects; therefore, the six complexity points for line and the six simple LO points.)

L(5) { "There is a great variety of line:^L / thick⁽¹⁾ / and thin⁽¹⁾ lines / used
 LO { for the trees;^{LO} / lines of varying length;⁽¹⁾ / some curved⁽¹⁾ / and some
 straight.⁽¹⁾"})

(This is a complex cue attend. The viewer mentions pictorial evidence for line--"trees," an LO category--but also differentiates the class by enumerating different kinds of line.)

3L(6) (TOTALS)
 7LO

TURN TO THE NEXT PAGE FOR MORE EXAMPLES OF THE LINE CATEGORY.

(L) Line (Continued). References to line quality, intensity, or contrast with the field, or a feeling of movement that results from the use of line should be coded C, Color; SQ, Surface Qualities; EQ, Expressive Qualities; or CR, Comparative Relationships, as shown in the following examples. For definitions and examples of Expressive Qualities and Comparative Relationships, see the sections on Expressive Attributes and Organizational Attributes which follow.

Quality:

"the lines^L/are fuzzy^{SQ}/and soft^{SQ} . . . the railroad ties^{LO}/are bold^{EQ}/
black^C/lines^L . . . the trees^{LO}'/outlines^L/are delicate^{EQ} . . . some
of the lines^L/are graceful^{EQ} in feeling . . . heavy^{EQ}/and droopy^{EQ}.
. . ."

Intensity or Contrast:

"some lines^L/are very dark^C . . . light^C,/indistinct^{EQ}/lines^L . . .
you can hardly see^{EQ}/the lines^L . . . the yellow^C/lines^L (stand out^{CR}
against^C) the green."

Movement:

"some of the lines^L/(on the trees)^{(1) LO}/look like they're moving to^{EQ}
the right . . . lines^L/going around and around^{EQ} . . . active^{EQ}/
line^L . . . quiet^{EQ}/line^L . . ."

GO TO THE NEXT PAGE FOR CODING PRACTICE.

CODE THESE STATEMENTS ABOUT "MANCHESTER VALLEY." REFRESH YOUR MEMORY ABOUT THE DISTINCTION BETWEEN EXPRESSIVE AND SURFACE QUALITIES OF LINE BEFORE YOU BEGIN CODING.

LO = Literal Object

L = Line

M = Material

EQ = Expressive Quality

C = Color

SQ = Surface Quality

"The curved lines in the trees, smoke, sky, and flag impart a feeling of movement. . . ."

"The bold black lines used throughout are visually exciting. . . ."

"The delicate tracery made by the leaves of the yellow-green trees is like embroidery."

(TOTALS)

CHECK YOUR CODING BY REFERRING TO THE NEXT PAGE.

L(4) 4LO { "The curved lines[~] in the trees,^{(1) LO} / smoke,^{(1) LO} / sky,^{(1) LO} / and flag^{(1) LO} / impart a
EQ { feeling of movement. . . . ")

(The class reference to curved lines is exemplified by citing pictorial references--four literal objects. There is one additional code; the viewer associates movement with the use of line, so code the last segment EQ.)

L, C { "The bold^{EQ} / black^C / lines[~] used throughout / are visually^{EQ} exciting. . . . ")
2EQ

(Bold and exciting are adjectives which refer to expressive attributes of lines; therefore, we code them EQ. The color and line classifications are simple.)

EQ, L(1), LO { "The delicate^{EQ} / tracery^L / made by the leaves^{(1) LO} / of the yellow-green^C /
LO, EQ { trees^{LO} / is like embroidery^{EQ}. . . . ")

(This is a bit more complicated: the adjective "delicate" describes an EQ, while "tracery" is interpreted as a synonym for line. The pictorial evidence cited for "delicate tracery" is the LO, "leaves." The phrase, "is like embroidery" indicates that the viewer perceives the lines (tracery) as evoking the quality of embroidery; therefore, we classify it EQ.)

3L(5) (TOTALS)

6LO

2C

4EQ

GO ON TO THE NEXT PAGE.

(SH) Shape. The SH coding is used for words or statements that identify shapes or describe the dimensions or characteristic structural attributes. Responses that indicate awareness of filled space or area, rather than the boundary that forms the shape, are classified in this category.

^{SH} "rectangles, ^{SH} triangles, ^{SH} orbs, ^{SH} square, ^{SH} cube, ^{SH} sphere, ^{SH} block,
^{SH} dome . . . ^{SH} the circles are many sizes . . . ^{SH} geometric shapes,
^{SH} abstract shapes . . . ^{SH} straight-sided shapes . . . ^{SH} convex,
^{SH} concave . . . ^{SH} open, ^{SH} closed . . . ^{SH} box-shaped . . . ^{LO} the hand/
^{SH} is curved . . . ^{LO} the tree/is 'Y' shaped . . . ^{SH} a skinny/^{LO} tree
. . . ^{SH} a muscular/^{LO} man . . . ^{SH} an angular/^{LO} body . . . ^{SH} a dynamic
shape. . . ."

(LT) Light. The LT coding is used for responses that indicate awareness of artistic devices used to show the effect of light on the surfaces of objects represented in the picture. This classification is not to be confused with remarks that describe the effect of light on the surface of the painting itself, or light words used as descriptive adjectives in conjunction with color, such as "shiny blue." The latter are classified under SQ, Surface Qualities.

^{LT} "looks shaded . . . ^{LT} shows sunlight . . . ^{LT} strong shadows/on the
^{LO} hills . . . ^{LT} shadow/of his cane/^{LO} on the water . . . ^{LO} the sun/is
^{LT} shining/through the trees . . . ^{LO} it glows . . . ^{LT} it is lighted
up. . . ."

CODE THE FOLLOWING STATEMENTS ABOUT "MANCHESTER VALLEY."

M = Material

C = Color

T = Technique

SH = Shape

LO = Literal Object

L = Line

LC = Literal Context

LT = Light

"I see triangles, rectangles, and parallelograms of various sizes . . . even the railroad ties are small, thin rectangles. . . ."

"the rectangular shapes contrast with the curved shapes of the trees, hills, and river. . . ."

"it's a foggy day . . . there are no strong shadows or bright patches of sunlight anywhere. . . ."

(TOTALS)

CHECK YOUR CODING BY READING THE NEXT PAGE.

3 SH { "I see triangles,^{SH}/rectangles,^{SH}/and parallelograms of various
 SH(1), LO { sizes . . . /even the railroad ties^{(1) LO}/are small thin^{SH}
 rectangles. . . ."

(The first statement is easy, with simple SH points for the names of shapes. The second statement refers to a literal object as a pictorial reference for the shape classification; therefore, we code SH (1), double coded for LO.)

CR(2), 2SH(3) { "the rectangular shapes contrast with the curved shapes/of the
 3 LO { trees,^{(1) SH}/hills,^{CR}/and river. . . ."

("Rectangular shapes" contrast with "curved shapes" is classified CR, Comparative Relationships, since the viewer has noted a comparison between rectangular and curved shapes. If you missed the CR, don't penalize yourself, since we have not really explained comparative relations. Note that the class reference "curved shapes" is elaborated by literal-object references; hence, the complexity points for shape, and the LO point.)

LO, LT { "it's a foggy day . . . /there are no strong shadows/or bright
 LT { patches of sunlight anywhere. . . ."

(Remember LC? Reread the explanation if you've forgotten this one. The reference to shadows and patches of sunlight indicate an awareness of light effects; hence, the two LT points.)

6SH(4) (TOTALS)
 4LO
 CR(2)
 LC
 2LT

THAT WAS EASY, WASN'T IT? ARE YOU READY FOR MORE CHALLENGING TASKS?
 GO ON TO THE NEXT PAGE.

IV. Organizational Attributes

This category of responses is indicative of a rather sophisticated level of perception. Descriptions coded in the two subcategories indicate that the viewer is able to recognize particular kinds of formal relationships between pictorial elements; that is, he is aware of the work as an organic complex of interrelated elements and visual qualities.

(CR) Comparative relationships. The CR coding is used for responses which indicate that the viewer has compared specific qualities or elements of a painting to each other in terms of some attribute. The statement strongly implies or explicitly states the basis of the comparison used.

This:

CR(2) 2LO { "the man is silhouetted against the light blue / hills . . ." }
 (implies comparison of figure and ground in terms of color value)

Diagram: (1) LO ← CR → (1) LO

But not this:

LO
 "the man is silhouetted . . ." (basis of comparison not clear)

Notice that statements which refer to comparative relationships are also double coded for the appropriate category in which the comparison is made. The phrase that states the type of comparison is underscored; the two examples of the category compared are indicated by drawing arrows to them, as in the following examples.

Size:

CR(1) LO { "this is bigger than the house over there. . . ." }
 ? ← CR → (1) LO

CR(2) 2SH { "the shapes in front are larger than the ones in the back-ground. . . ." }
 (1) SH ← CR → (1) SH

$\xleftarrow{LO} \quad \quad \quad \xrightarrow{CR} \quad \quad \quad \xrightarrow{LO}$

CR(2)2LO { "there's a big boat here, and all the other objects are
smaller. . . .")

Location:

This:

$\xleftarrow{LO} \quad \quad \quad \xrightarrow{CR} \quad \quad \quad \xrightarrow{LO}$

CR(2)2LO { "many people in the foreground, but only a few in the background."

But not this:

2LO { "people here, / and trees in the background. . . .")

Figure-ground:

$\xleftarrow{(1)SH} \quad \quad \quad \xrightarrow{CR} \quad \quad \quad \xrightarrow{(1)SH}$

CR(1),SH { "the large shape stands out from the background. . . .")

Color:

$\xleftarrow{(1)C} \quad \quad \quad \xrightarrow{CR} \quad \quad \quad \xrightarrow{(1)C}$

CR(2),2C { "the man's dark coat contrasts with the light background. . . .")

$\xleftarrow{(1)C} \quad \quad \quad \xrightarrow{CR} \quad \quad \quad \xrightarrow{(1)C}$

CR(2),2C { "this color is the complement of that one. . . .")

$\xleftarrow{C} \quad \quad \quad \xrightarrow{CR} \quad \quad \quad \xrightarrow{C} \quad \quad \quad \xrightarrow{CR}$

CR,C / CR,C { "the colors contrast . . . the colors are related. . . .")

$\xleftarrow{C} \quad \quad \quad \xrightarrow{CR}$

CR,C { "the colors go together, or harmonize. . . .")

Spatial divisions or relationships:

$\xleftarrow{CR} \quad \quad \quad \xrightarrow{(1)SH}$

CR(2),2SH { "lots of space between these shapes, but not much between
these. . . .")

$\xleftarrow{CR} \quad \quad \quad \xrightarrow{SH}$

CR,SH { "most of the space is in the background, while the shapes in
front are all crowded together. . . .")

$\xleftarrow{LO} \quad \quad \quad \xrightarrow{CR}$

CR,LO { "the people are crowded together in the center, but there
is a lot of space around them toward the edge of the painting. . . .")

Line:

CR, L { "there are parallel lines/ ^{(1) L} at both top and bottom. . . ." } ^{CR}

CR(2), 2L, L { "thin lines ^{(1) L} used in the background, / ^{CR} but the man in the ^{LO} center ^{(1) L} is drawn with thick ones. . . ." } ^{CR}

CR(2), 2L { "the lines ^{(1) L} go at right angles to each other in the middle area, ^{CR} but they ^{(1) L} parallel each other at the edges. . . ." } ^{CR}

Shape:

CR(2), 2SH { "the round shapes ^{(1) SH} contrast with the rectangular ones. . . ." } ^{CR} ^{(1) SH}

CR(2), 2SH { "large solid closed shapes ^{(1) SH} played against open shapes. . . ." } ^{CR} ^{(1) SH}

Surface quality:

CR(2), 2SQ, { "the red/buildings ^C look ^{LO} rough-textured, while the yellow/ones ^{(1) SQ} ^C ^{LO} appear to be smooth plaster. . . ." } ^{CR} ^{(1) SQ}

Expressive quality:

CR(2), 2EQ, { "the man ^{LO} appears to be ^{(1) EQ} complacent and impassive, while his wife ^{LO} ^{(1) EQ} looks nervous and excited. . . ." } ^{CR}

CR(4), 4EQ, { "these shapes ^{SH} are very active and/full of motion, but the back- ^{(1) EQ} ^{(1) EQ} ^{CR} ground is ^{(1) EQ} quiet/and serene-looking. . . ." } ^{(1) EQ}

Note: Complexity points are given for CR only when the category of comparison is explicitly mentioned, or strongly implied.

THE NEXT PAGE IS A REAL CHALLENGE, BUT YOU ARE NOW SOPHISTICATED ENOUGH IN YOUR PERCEPTION TO CODE ALL THE STATEMENTS EASILY. GOOD LUCK!

CODE THE FOLLOWING STATEMENTS. REFER TO "MANCHESTER VALLEY."

C = Color	LO = Literal Object	EQ = Expressive Quality
L = Line	LC = Literal Context	SQ = Surface Quality
SH = Shape	T = Technique	CR = Comparative Relationship

"the dark waving trees are silhouetted against the light blue sky. . . ."

"the light yellow-green area and the large yellow-green house contrast with the darker green hills in the background. . . ."

"there are both light and dark value trees in the painting. . . ."

"you notice the two gray houses in front, but you don't notice the little white houses in back. . . ."

(TOTALS)

CHECK YOUR CODING BY REFERRING TO THE NEXT PAGE.

$\text{VC} \xleftarrow{\text{EQ}} \text{LO} \xrightarrow{\text{CR}} \text{VC}$

CR(2), 2C, } "the dark/waving/trees are silhouetted against the light blue/
 EQ, 2LO } sky. . . ."

(Notice that the CR complexity points are classified C, rather than LO, since the words "silhouetted against" imply color rather than shape contrast.)

$\text{C} \xrightarrow{\text{SH}} \text{LO} \xrightarrow{\text{CR}} \text{C}$

CR(3) } "the light yellow-green/area/and the large yellow-green/house
 3C, SH } contrast with the darker green/hills in the background. . . ."

(Here the CR complexity points are given for a mixed comparison which involves two LO's and one SH.)

$\text{CR} \xrightarrow{\text{VC}} \text{VC} \xrightarrow{\text{LO}} \text{LO}$

CR(2), 2C, } "there are both light/and dark value/trees/in the painting. . . ."

(The CR is in terms of similarity and difference in value; therefore, the complexity points are given for color. LO is a class reference and is given one simple point.)

$2\text{C} \xrightarrow{2\text{LO}} 2\text{LO}$

2C, 2LO } "you notice the two gray/houses in front,/but you don't notice
 2C, 2LO } the little white/houses in back. . . ."

(This is an ambiguous response. Although there is mention of "in front" and "in back," there is no explicit mention of a basis for comparison, nor is there a strong implication that the person knows that the reason the two gray houses are noticeable is because of contrast in color or value. Therefore we use simple LO and C points.)

3CR(7) (TOTALS)

11C

EQ

9LO

SH

NOW THAT WASN'T DIFFICULT, WAS IT? GO TO THE NEXT PAGE TO LEARN ABOUT A MORE SOPHISTICATED CATEGORY.

(PO) Principle of organization. The PO coding is used for responses which indicate awareness that there is an organizational principle which governs the interrelationships of one or more qualities or elements in the painting. Not only is the viewer aware that component elements are related, but he can tell how they are related. He describes the master plan which unites the total composition or certain subsystems within the composition in visual terms.

Statements are coded as PO, with complexity points for pictorial references. Other categories subsumed under the PO statement are double coded as shown below.

In terms of the total composition:

$PO(3), SH, \begin{matrix} PO \\ L, C \end{matrix} \left\{ \begin{matrix} \text{"the composition is complex, using many shapes, lines, and} \\ \text{colors. . . ."} \end{matrix} \right. \begin{matrix} (1) SH \\ (1) L \\ (1) C \end{matrix}$

$PO(1), SH \left\{ \begin{matrix} PO \\ \text{"the composition is based on a pyramid shape. . . ."} \end{matrix} \right. \begin{matrix} (1) SH \end{matrix}$

$PO(1), SH \left\{ \begin{matrix} PO \\ \text{"the painting is organized on the basis of repeated horizontal} \\ \text{areas of various widths. . . ."} \end{matrix} \right. \begin{matrix} (1) SH \end{matrix}$

$PO \left\{ \begin{matrix} PO \\ \text{"the picture looks balanced and symmetrical. . . ."} \end{matrix} \right.$

$PO(2), \begin{matrix} PO \\ 2SH \end{matrix} \left\{ \begin{matrix} \text{"the composition is asymmetrical, using a few large shapes to} \\ \text{balance several small ones on the other side. . . ."} \end{matrix} \right. \begin{matrix} (1) SH \\ (1) SH \end{matrix}$

$PO(2), SH, \begin{matrix} PO \\ C \end{matrix} \left\{ \begin{matrix} \text{"the painting is simple, using only a few shapes and} \\ \text{colors. . . ."} \end{matrix} \right. \begin{matrix} (1) SH \\ (1) C \end{matrix}$

In terms of one quality or element:

- PO(1), SH { (principle of gradation) "the ^{(1) SH} shapes are small in the center
of the painting, ^{PO} gradually getting larger and larger toward the
edge . . . / the ^{(1) L} lines ^{PO} get straighter and straighter as they go
toward the edges of the picture. . . ."
- PO(1), C { "the ^{(1) C} colors at the right side are gloomy and dark, ^{PO} becoming
lighter and lighter as they go toward the left and top. . . ."
- PO(1), SH, EQ { (principle of repetition) "these ^{(1) SH} long shapes ^{PO} are repeated
over and over, ^{EQ} like a musical beat. . . ."
- PO(2), 2L { (principle of alternation) "the ^{(1) L} curved ^{(1) L} and straight lines/
^{PO} alternate throughout the picture. . . ."
- PO(1), C { (principle of variation) "the ^{(1) C} colors ^{PO} are varied from bright to
dull/. . . the ^{(1) SH} shapes ^{PO} are varied from large to small through-
out. . . ."

Complex cue attends. Occasionally the PO statement will be accompanied by complex statements which belong to other categories, such as Comparative Relationships, Technique, or Color. Following are some examples with explanations of coding procedures.

PO and comparative relationships:

- PO(2), 2SH { "the painting is organized by using opposing ^{PO} vertical ^{(1) SH} and
horizontal shapes: / for example, the ^{(1) SH} vertical shapes ^{(1) SH} of
the houses ^{(1) LO} and trees ^{(1) LO} are ^{CR} contrasted with the horizontal
shapes ^{(1) LO} of the fields, ^{(1) LO} sky, ^{(1) LO} track-bed, ^{(1) LO} and train. . . ."

In the example above, the coding records the hierarchical arrangement of the categories included in the response. The PO is stated in terms of shape; the CR is also in terms of shape, but with pictorial reference complexity points for shape in terms of literal objects (fields, sky, etc.).

PO and Technique/Color:

PO(3) {
 2C {
 LO, T {
 2SQ {
 "a lot of blue in the waters: / not a nice shining blue / or a
 colorful blue, / but it's a darkish, grayish / . . . with a little
 white in it / . . . to make it look like / the waves. . . ."
 C {
 T {
 "he uses a lot of dark colors, / like the man / -you can't really
 see the details, because he's made very darkly around. . . ."
 C(1), LO {
 T {
 "in the background they're getting a little lighter: / with
 the clouds / . . . they're whiter / . . . they have lighter
 blues. . . ."
 C(1), LO {
 2C {

The complex response above was made by an eight-year-old girl. It consists of three groups of statements which have to do with color relationships, but which also are pictorial evidence for a PO in terms of color pattern. Each statement is bracketed and given a complexity point for the major category, PO. Each statement is then coded in terms of color complexity points and the other categories which apply.

PO(1), SH(3), 3LO {
 "the shapes: / the man's hat is half of a circle--round; / the
 fish is like a curve, too, you can see there, / so is the boat /
 . . . he uses a lot of round figures, sort of. . . / around, like
 in the boat . . . the curves in the boat. . . ."
 (1) SH {
 (1) LO {
 (1) LO {
 PD {

This group of statements is coded as three shape complexity points with regard to the major category, PO (see underlined phrase), and double coded with regard to the SH and LO categories. Some of the response is lined out, since it is redundant and cannot be coded twice.

CODE THESE STATEMENTS ABOUT "MANCHESTER VALLEY."

C = Color

LO = Literal Object

SH = Shape

PO = Principle of Organization

L = Line

CR = Comparative Relationship

"the design is composed of vertical shapes opposed by horizontal ones: the houses and trees are vertical, while the stream, fields, and track and train are horizontal shapes. . . ."

(TOTALS)

CHECK YOUR CODING BY TURNING TO THE NEXT PAGE.

^{PO}
 "the design is composed of vertical shapes opposed by
 horizontal ones: / the houses / and trees are vertical, / while the
 stream, / fields, / and track / and train are horizontal shapes. . . ."

PO(2) 2 SH(6)
 6 LO

(1) SH (1) LO (1) LO
 (1) LO (1) LO (1) LO (1) LO

(The PO is in terms of vertical and horizontal shapes, thus, two SH complexity points are given. A CR in terms of SH is subsumed under the PO. Pictorial evidence for SH is given by the LO's mentioned; therefore, LO's are double coded as SH complexity points and as LO's.)

PO(2) (TOTALS)
 2 SH(6)
 6 LO

GO ON TO THE NEXT PAGE FOR MORE EXAMPLES.

CODE THE FOLLOWING STATEMENTS ABOUT "MANCHESTER VALLEY."

C = Color

SH = Shape

PO = Principle of Organization

L = Line

T = Technique

CR = Comparative Relationship

LO = Literal Object

"there are a series of horizontal areas in this painting:
they are different widths and different colors. . . ."

"the black areas by the stream are noticeable because the
stream is light gray. . . ."

(TOTALS)

TURN TO THE NEXT PAGE TO CHECK YOUR CODING.

$PO(1), SH$
 $2CR(2), C, SH$

PO $(1) SH$
 $CR \rightarrow (1) SH$ $CR \rightarrow (1) C$
 "there are a series of horizontal areas in this painting:
 they are different widths and different colors. . . ."

(The PO is viewed in terms of "horizontal areas": i.e., shape. Since there is no specific number of shapes mentioned, only one complexity point is given for "series." The shapes are compared in terms of width and color, so two CR points are given, with complexity points for each category of comparison.)

$CR(2), 2C$
 LO

$(1) C$ SH CR LO
 "the black/areas/by the stream are noticeable because the stream
 is light gray. . . ."

(This is a CR, with the basis of comparison--value contrast--explicitly stated. The LO for stream is given only once, although the word is repeated.)

$PO(1)$ (TOTALS)
 $2SH$
 $3CR(4)$
 $3C$
 LO

THAT WAS DIFFICULT. HOWEVER, IF YOU REREAD THE EXAMPLES AND THINK CAREFULLY, YOU WILL BE ABLE TO IMPROVE YOUR CODING SKILL. IF YOU MISSED MORE THAN FIVE CUES OR MISCODED MORE THAN FIVE, YOU SHOULD REREAD THE SECTION ON PRINCIPLE OF ORGANIZATION AND CORRECT YOUR ERRORS BEFORE GOING ON.

V. Expressive Attributes

This category classifies statements indicating an awareness that the visual qualities and representational devices presented in the work function to express feeling or meaning.

(EQ) Expressive quality. The EQ coding is used for responses which indicate that the viewer recognizes that visual elements function as signs or analogs for feeling-states, physical actions, or sensations.

"the ^Cblue in the back/^{EQ}looks spooky/^{EQ}or gloomy. . . ."

"the ^Cgold/^{SQ}looks syrupy/. . . brown/^Clooks ^{EQ}mysterious. . . ."

"the squiggly ^Llines/^{EQ}look like they're dancing. . . ."

"curved ^Llines/^{SQ}are soft/^{EQ}and feminine/. . . zig-zag ^Llines/^{EQ}are nervous-looking/. . . lyrical ^{EQ}. . . poetic ^{EQ}. . . shapes/^{SH}are stolid/^{EQ}and menacing ^{EQ}. . . the triangular shapes/^{SH}look active/^{EQ}and moving. . . ."

Note that "syrupy," which is descriptive of a physical property, is classified under SQ. In making distinctions between SQ and EQ, those attributes which could be felt if the surface of the object depicted were touched are coded SQ; EQ applies to the presence of psychological states or personal intent inferred from the qualities presented. The inferences are of the type made when we judge a person's mood by his gestures or facial expressions.

GO TO THE NEXT PAGE FOR PRACTICE IN CODING EXPRESSIVE QUALITIES.

CODE THE FOLLOWING. REFER TO "MANCHESTER VALLEY," IF NECESSARY.

C = Color	LO = Literal Object	EQ = Expressive Quality
L = Line	LC = Literal Context	SQ = Surface Quality
SH = Shape	CR = Comparative Relationship	M = Material

"the colors are warm and rich. . . ."

"the green area around the big house looks as if it would feel
soft and tickley. . . ."

"the black accents are bold and dark: the trees are delicate
and lace-like. . . ."

"the sky is a little dreary and dismal. . . ."

"the rocks look solid and secure. . . ."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

C, 2EQ { "the ^Ccolors/are ^{EQ}warm/and ^{EQ}rich. . . ." }

("Warm and rich" describe qualities of color which are not physical properties (SQ), but are analogs for physical sensations [warm] and a quality of sumptuousness, intensity or vividness [rich]: therefore the EQ classification.)

C, SH, LO { "the ^Cgreen/^{SH}area/around the big ^{LO}house/looks as if it would feel
2SQ { ^{SQ}soft/^{SQ}and tickley. . . ." }

(The adjectives "soft and tickley" are tactile sensations related to physical properties; hence, the SQ classification.)

C, 2EQ, LO { "the black ^Caccents/are ^{EQ}bold/and dark: /the ^{LO}trees/are ^{EQ}delicate/
EQ { ^{EQ}and lace-like. . . ." }

(Bold and delicate describe the "gesture" of the trees and the aggressive quality of the black color; hence, the EQ classification. Dark is not coded, since it is an adjective referring to a color property--value--of the black, and thus is redundant.)

LO, 2EQ { "the ^{LO}sky/is a little ^{EQ}dreary/and ^{EQ}dismal. . . ." }

("Dreary and dismal" refer to moods or feelings associated with the sky's appearance; hence, the EQ classification.)

LO, 2SQ { "the ^{LO}rocks/look ^{SQ}solid/and ^{SQ}secure. . . ." }

("Solid and secure" refer to physical states; hence, the SQ classification.)

3C
7EQ
SH
4LO
4SQ
(TOTALS)

(US) Unique schemata. The US coding is used for responses which acknowledge that the work contains unusual or novel representations that depart from literalness and result in a total configuration that resists interpretation. A response coded US acknowledges ambiguities, paradoxes, and logical contradictions.

- US(2) 2SH { "shapes are all bent and twisted, / so it looks sort of unreal. . . .")
 US(1) LO { "those creatures / are unusual and strange, as if from another world. . . .")
 US(1) LO { "something strange here: things don't seem to go together. . . .")
 US(1), LO { "as in a dream, when things don't make sense. . . .")
 US(1), LO { "that's unusual: you don't usually see / a man / with a green / face. . . .")
 US(2) 2LO { "I notice these houses and people are upside down: I wonder why?"

Notice that the US is considered in terms of the pictorial details noted which give rise to the mention of the US. The words that describe the specific Unique Schemata are underlined, and US is written above them. Complexity points are given for these pictorial details and responses are double coded in terms of the categories mentioned.

(PQ) Pervasive quality. The PQ coding is used for responses which indicate that the viewer has classified the total effect of the work. In contrast to EQ and US responses, in which the viewer is noting the characteristics of a few plastic or representational elements, a PQ response indicates that he is noting the expressiveness of the whole composition.

Pervasive Quality descriptions may refer to the following types of characteristics:

(physionomic characteristics inferred from gestures of facial expressions) "menacing . . . a threatening feeling . . . pleasant . . . mysterious . . . alive . . . confused . . . bold . . . wild. . . ."

(motive moods associated with certain complexes of cues attended) "holiday mood . . . gay . . . sad . . . moody . . . depressing . . . tranquil . . . peaceful. . . ."

(kinesthetic sensations of movement, tension, or position perceived via the muscles) "stable, still . . . turbulent . . . lots of motion . . . active . . . dynamic . . . swirling . . . flows . . . writhe . . . wriggles . . . fluttering . . . throbbing . . . exploding . . . feeling of floating in space . . . suspended . . . tense and restrained. . . ."

TURN TO THE NEXT PAGE FOR PRACTICE IN CODING US AND PQ CATEGORIES.

CODE THE FOLLOWING. SOME REMARKS ARE PQ STATEMENTS; OTHERS ARE US STATEMENTS. THERE ARE OTHER CATEGORIES, TOO. LOOK AT "MANCHESTER VALLEY."

M = Material	SH = Shape	LC = Literal Context
T = Technique	L = Line	CR = Comparative Relationship
SQ = Surface Quality	LT = Light	PO = Principle of Organization
C = Color	LO = Literal Object	US = Unique Schemata
L = Line	EQ = Expressive Quality	PQ = Pervasive Quality

"the houses look almost flat, rather than three-dimensional . . . not drawn correctly. . . ."

"the train is drawn the same way . . . almost child-like. . . ."

"this is a very folksy-looking scene: quaint. . . ."

"the way the light-colored shape comes down between the hills at the left is strange . . . it's hard to tell what the area is supposed to be: sky or water. . . ."

"a very warm, inviting country scene . . . it's rather happy and at the same time nostalgic in feeling. . . ."

(TOTALS)

CHECK YOUR CODING BY REFERRING TO THE NEXT PAGE.

^{(1) LO}
 US (2) { "the houses / look almost ^{SH} flat, / rather than three-dimensional /
 2SH, LO { . . . ^{US} not drawn correctly. . . ."
 LO, T { "^{(1) LO}the train is drawn the same way / . . . almost child-like. . . ."

(The US is described in terms of shape, but the pictorial reference is an LO, "houses." Therefore, the complexity point is given for the pictorial reference, LO. Another complexity point is given for the train as a pictorial reference. The "child-like" manner of rendering is coded T, Technique.)

{ "this is a very folksy-looking scene: ^{PQ} quaint. . . ."

(The expressiveness of the total configuration is summed up with "quaint"; hence, the PQ classification. The preceding phrase is an elaboration of the idea of quaintness. It is not coded, since it makes no reference to pictorial details.)

^C
 US (1) SH, C { "the way the light-colored / ^{(1) SH} shape / comes down between / the ^{LO} hills at
 3LO { the left / is strange . . . it's ^{US} hard to tell what the area is
 supposed to be: / ^{LO} sky / or ^{LO} water?")

(The US is in terms of the strangeness of the shape, so the complexity point is given for shape, as the pictorial reference. The last part of the statement is a speculation about what the area could represent, and could be coded as an hypothesis, but we will learn about that coding system later. For the time being, we simply code the two LO's: sky and water.)

^{EQ} ^{EQ} ^{(1) LC} ^{PQ}
 2PQ (1) LC { "a very warm, / inviting / country scene / . . . it's rather happy /
 2EQ { and at the same time nostalgic in feeling. . . ."
^{PQ}

(The scene (LC) is described by two EQ's: it is the pictorial reference for the viewer's associations of two feeling states, "happy" and "nostalgic" . . . two PQ's.)

2US (3)
 3SH (TOTALS)
 5LO
 T
 C
 LC
 2EQ

VI. Contextual Attributes

This category refers to statements that show awareness of the art form as a reflection of cultural influences: as a product of a particular historical evolution, a particular "school" or artistic trend, or a particular artist.

(AF) Art form. The AF coding is used for statements that identify the type of art form at a generic level in terms of mode of expression; statements that classify the work in terms of the subject matter that is the vehicle of expression; and statements that refer to the format of the work.

(mode of expression) "a sculpture . . . painting . . .
drawing . . . etching . . . woodcut . . . print. . . ."

(subject matter) "landscape . . . portrait . . . abstraction
. . . figure . . . still life . . . comic art . . .
caricature. . . ."

(format) "mural . . . easel . . . panel . . . ceiling . . .
miniature. . . ."

(H/C) Historical, Cultural. The H/C coding is used for responses that indicate knowledge and awareness of the temporal or cultural context in which the work was done; and statements regarding the where, for whom, and why of the work's construction in social terms.

"it was painted in England in the 19th century. . . ."

"this is a social comment on the 20th century. . . ."

"this painting is a record of the invasion of. . . ."

(ST) Style. The ST coding is used for references to the characteristics of the work which identify a particular manner of rendering. Some statements describe features of the work that suggest a chronological placement.

(style of rendering, general) "looks photographic . . .
 painterly . . . linear . . . planar . . . well-delineated
 . . . very detailed . . . naturalistic . . . realistically
 painted . . . expressively portrayed . . . classically
 drawn . . . abstract. . . ."

(style of rendering, particular artist) "like Van Gogh did
 . . . like Picasso . . . like Chagall. . . ."

(chronology) "old fashioned . . . modern. . . ."

CODE THE FOLLOWING, FINDING THE AF, H/C AND ST REFERENCES. THERE ARE OTHER CATEGORIES, TOO. REFER TO "MANCHESTER VALLEY."

M = Material	C = Color	PO = Principle of Organization
T = Technique	L = Line	EQ = Expressive Quality
SQ = Surface Quality	SH = Shape	US = Unique Schemata
LO = Literal Object	LT = Light	PQ = Pervasive Quality
LC = Literal Context	AF = Art Form	CR = Comparative Relationship
	ST = Style	H/C= Historical, Cultural

"a very quaint little painting. . . ."

"like the work of a 'primitive' folk artist of the last century. . . ."

"notice the carefully detailed treatment of the trees and buildings. . . ."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

PQ, AF { "a very quaint^{PQ}/little painting.^{AF} . . . ")

(The viewer not only classifies the art form, but also describes its pervasive character.)

ST(2), 2LO { "like the work of a 'primitive' folk artistST/of the last^{H/C} century. . . . ")

H/C, T

"notice the carefully detailed treatment^T/of the trees^{(1) LO} and buildings.^{(1) LO} "

(Style is identified, the work is placed chronologically, (H/C); and the particular technique which led to the statement about style is illustrated by two pictorial references: hence, the complexity points for pictorial reference are coded with ST, and T is coded as a simple point. There is a dilemma here, since the mention of Technique is included in the citing of pictorial evidence. If the ST statement had not preceded the T statement, complexity points for the two LO's mentioned would have been coded with T; however, we consider the T statement superseded by the ST statement, and award the complexity points to the ST category.)

PQ
AF
ST(2)
2LO
T
(TOTALS)

YOU HAVE NOW LEARNED ALL THE CATEGORIES FOR CUE ATTENDANCE. THE NEXT GROUP OF CATEGORIES ARE THOSE WHICH CLASSIFY HYPOTHETICAL INFERENCES ABOUT ACTIONS AND EVENTS DEPICTED IN PAINTINGS.

HYPOTHESIS-GENERATION CATEGORIES

VII. Meaning Attributes

This category classifies different kinds of inferences made about various aspects of a painting. Statements which indicate an awareness of the representational function of images and objects, or the evocation of particular emotional responses or mental images in the viewer are classified under "Literal Reference," "Affective Reference," or "Symbolic Reference."

Literal reference. The viewer advances a plausible explanation or inference based on observation of the literal aspects of images presented. The images are related to empirical, everyday experience. The interpretation does not indicate any recognition that the subject matter might function to express abstract ideas or universal concepts. Under the heading are five divisions: action, thought, sensation, nature of object, and context.

(HA) Hypothesis-action. The HA coding is used for hypotheses relating to past, present, or future action on the part of individuals or groups portrayed.

^{HA}"he's walking/. . . ^{HA}he walked over there/^{HA}and picked up the
pieces/^{HA}. . . she's feeding the birds/^{HA}. . . he's sitting
down. . . ."/

(Statements which do not imply a specific plan, intent, or purpose that is to be realized through future actions, but do imply continuing or future actions are also coded HA.)

^{HA}"he's going out to sea/. . . ^{HA}they'll all go to dinner soon . . ./
they're going into the forest over there/^{HA}. . . they're going
to the village."/

(If the purpose for going is given, the statement is coded as in the double-coded examples below.)

(HT) Hypothesis-thought. The HT coding is used for hypotheses ascribing thoughts or intentions to individuals portrayed, with emphasis on the literal or mundane, rather than on the fanciful or imaginative content.

"she's thinking ^{HT}sad thoughts/. . . he's thinking ^{HT}about having dinner/. . . he's making ^{HT}up a story/. . . he's composing ^{HT}a song. . . ."

(Statements which imply a plan, intent, or specific purpose to be realized through future actions are also coded HT.)

"he's going to go on a trip to see his aunt/. . . he's going ^{HT}out to hunt deer/. . . he's going to go out to catch some more ^{HT}fish/. . . she's planning ^{HT}to go shopping later. . . ."

Double-coding. Some statements have both an action and a thought component. They are to be analyzed into components and coded thus:

"they're going to build ^{HT}some more houses in the forest /
so they'll leave ^{HA}the village/. . . they're going ^{HA}to the village/
to find ^{HT}some shelter . . . he cut ^{HA}down the trees/^{HT}to build a
house/. . . he's pointing ^{HA}out to sea/^{HT}telling them a story
about his days as a sailor/. . . he's playing ^{HA}a tune on his
violin/^{HT}about the days long ago. . . ."

GO TO THE NEXT PAGE FOR PRACTICE IN CODING HA AND HT HYPOTHESES.



I AND MY VILLAGE

Marc Chagall, Contemporary

MUSEUM OF MODERN ART, NEW YORK

CM-165 PUBLISHED AND PRINTED BY
BARTON-COTTON, INC., OF BALTIMORE

LOOK AT PICTURE 3, "I AND MY VILLAGE." THE FOLLOWING STATEMENTS ARE ABOUT THAT PAINTING. BREAK THE STATEMENTS INTO THOUGHT UNITS AND CLASSIFY EACH THOUGHT UNIT IN A HYPOTHESIS-GENERATION CATEGORY.

HA = Hypothesis-Action

HT = Hypothesis-Thought

"The animal seems to be talking to the man, telling him he's a kindly master."

"The man is coming from the fields, where he's been harvesting the crops."

"He's going home to dinner."

"The green-faced man is looking the animal in the eye, thinking, 'I'm his master--he'll obey me.'"

"The animal is looking back, as if he may not do the man's bidding."

"The man wants to give the animal the branch to eat."

(TOTALS)

CHECK YOUR CODING BY TURNING TO THE NEXT PAGE.

2 HA, HT { "The animal seems to be talking to the man, ^{HA}telling him ^{HA}/he's
a kindly master.")

(This example fits the double-coding model: it has both an action and thought component. Telling is considered an action, and the thought content of what the animal is telling is classified as HT.)

2 HA { "The man is coming from the fields, ^{HA}/where he's been harvesting ^{HA}
the crops.")

(This is straightforward classification of actions.)

HA { "He's going home to dinner.")

(Although one could interpret this as a plan to go home to have dinner, the phrasing gives slightly more weight to the action component; therefore, the HA classification.)

HA, HT { "The green-faced man is looking the animal in the eye, ^{HA}/^{HT}thinking,
"I'm his master--he'll obey me.")

(The HA classification is obvious; the thought preceded by the word, "thinking" is classified HT.)

HA, HT { "The animal is looking back, ^{HA}/as if he may not ^{HT}do the man's
bidding.")

(The second part of this statement is classified HT, since the wording implies a plan or intent.)

HT { "The man wants to give the animal the branch to eat.")

(An intent of the man is described; hence, the HT classification.)

7 HA
4 HT (TOTALS)

FREQUENTLY INDIVIDUALS GIVE AN HYPOTHESIS, THEN DO SOME CUE ATTENDING TO ESTABLISH THE REASONS FOR THEIR INFERENCE. THESE KINDS OF COMPLEX HYPOTHESES ARE DESCRIBED ON THE NEXT PAGE.

Coding of Simple and Complex Hypotheses

Simple. If the elaboration is a description of HA, HT, or if it is adverbial, it is coded as shown below.

- HA { "He's talking very fast to the man. . . .")^{HA}
 HA { "He looks like he's sitting there very calmly. . . .")^{HA}
 HT { "Some of the people are thinking happy thoughts. . . .")^{HT}

Complex. If the elaboration cites pictorial evidence in support of the hypothesis, it is coded as shown below.

- HA(3)3LO { "You can tell they haven't just arrived/in a new land, because
 HC { there is already a house/and some trees planted/and some tree
 stumps on the left . . .) (well, they just don't fall off/and
 3 HA { disappear, they look like they've been sliced off by someone."

Coding procedure for LO mentioned in a cue attend and then again in a complex cue attend or hypothesis. Within the same individual's response, if he mentions LO's in a cue attend, then mentions them again in a complex cue attend related to another category, or as pictorial evidence in a complex hypothesis, do not give LO credit for the second mention, but do give complexity points for the category to which they relate. See the example below.

- 5LO { "a man in the front/by a woman, some buildings, trees, fence
 posts. . . .")^{LO}
 T, C(4) { "he uses a lot of/dark colors . . /like . . . for the man,
 and woman, and the trees, and the fence posts. . . .")^T
 5LO { "a man in the front/by the woman, some buildings, trees, fence
 posts. . . .")^{LO}

^{HC}
 "this shows a typical family scene long ago, because there is
^{HA} { ⁽¹⁾the man / ⁽¹⁾and the woman / ⁽¹⁾and children all together, ^{HA}walking slowly
 in the park. . . ."

Hierarchical arrangement of cues and hypotheses. In some complex responses the hypothesis is accompanied by several abstract cue attend categories (e.g. EQ, PO, CR) as well as concrete ones (e.g. LO, C, SH). There is no hard and fast rule to govern coding of these complex responses. In some cases, the hypothesis will take precedence over a cue attend coding. In others, the cue attend is coded along with the hypothesis classification. Examples of both types of coding are given throughout this section. The decision of whether or not to subsume cue attends under a hypothesis classification grows out of a careful analysis of the text in question.

CODE THESE COMPLEX HYPOTHESES. THEY REFER TO PICTURE 3, "I AND MY VILLAGE."

HA = Hypothesis-Action

HT = Hypothesis-Thought

"He's going home from working in the field . . . you can see a scythe over his shoulder, and he has on his working boots. . . ."

"The animal is dreaming about when she will be milked: the little picture of the woman milking the small animal shows the dream. . . ."

"The man is going to feed the animal . . . he's holding a tree branch in his hand, which has fruit and seeds on it. . . ."

(TOTALS)

CHECK YOUR CODING BY TURNING TO THE NEXT PAGE.

2 HA(2) { "He's going home/^{HA}from working in the field . . . you can see
2 LO { a scythe over his shoulder,^{(1) LO}and he has on his working boots.^{(1) LO} . . .")

(The viewer names the objects which support his inference about the man's actions; hence, complexity points are given for scythe and boots and the LO's are double coded.)

HT(1), LO { "The animal is dreaming about when she will be milked;^{HT}the
HA { little picture/^{(1) LO}of the woman milking the small animal/^{HA}shows the
dream. . . .")

(The animal's dream is classified as thought, HT. The "picture . . . shows the dream" is the evidence for the inference that the animal is dreaming; hence, picture is coded as LO and as a complexity point for HT. The phrase "of the woman . . . animal" is an inference about what actions take place in the little picture, and is therefore classed as an HA.)

HT(3), 3 LO { "The man is going to feed the animal . . ./^{HT}he's holding a tree
HA { branch in his hand/^{(1) LO}which has fruit and seeds on it.^{(1) LO} . . .")

(This is a little complicated. The man's intention to feed the animal is classed HT; the action of holding the tree branch is classed HA, but the tree branch, and fruit and seeds are the pictorial evidence which supports the hypothesis that the man intends to feed the animal. Therefore, we give three complexity points to HT, and double code the three LO's. Notice that, although the "hand" is mentioned, it is within the hypothesis about action, so is not coded as an LO.)

4 HA(2)
2 HT(4) (TOTALS)
6 LO

IS EVERYTHING CLEAR NOW? LET'S GO ON TO MORE HYPOTHESES.

(HS) Hypothesis-sensation. The HS coding is used for hypotheses relating to physical sensations or states.

HS, HA { "He's cold/^{HS} because he's wearing a heavy coat. . . .")
 HA, HS { "She's resting^{HA} on the bench/ because she's^{HS} tired. . . .")
 HS, HA { "I think he's^{HS} very tired:/ he's walked^{HA} a long way. . . .")

(Note: Subject matter context is heavily relied upon in making the hypotheses. No attempt is made to see sensations or states represented as being symbolic of ideas or orientations toward life.)

(HNO) Hypothesis-nature of object. The HNO coding is used for hypotheses which advance an explanation of what an object might be, or what a person's role might be.

"It looks like a man with a wooden head . . . it might be a stone, or it could be a bag . . . it might be a dummy . . . a scarecrow . . . a puppet . . . a monster . . . a preacher . . . the leader of the group . . . the father . . . mother . . . a magician . . . a magic box . . . a ghost . . . his wife . . . his daughter. . . ."

An HNO classification supersedes an LO classification; that is, any LO mentioned in a simple hypothesis is not coded as an LO, but as a complexity point related to the major classification.

(HC) Hypothesis-context. Hypotheses which refer to temporal, cultural, situational, or historical contexts within which the depicted subject matter could be taking place, or could have taken place:

"It's long ago . . . in England . . . it's winter . . . a sunny day . . . it's a movie . . . like in the story 'Robin-hood' . . . a concert . . . a holiday celebration . . . the storm is coming up . . . there was an earthquake . . . it's going to rain . . . it's going to snow. . . ."

Confusion between LC and HC. The code is LC when it is obvious from the picture what the context is: "in the city, at the beach, or in a park." The code is HC when an inference about the specific location or

nature of environment is made from the pictorial evidence: "in Boston . . . Chicago . . . it's very cold . . . or it's going to snow."

If you can see enough pictorial evidence to warrant classifying a remark as a simple description of the context, then code it as LC. But if there are several alternatives which are easy to consider in light of what you see in the painting, then assume the remark is an hypothesis, and code it as HC.

FIND THE HS, HNO, AND HC HYPOTHESES. FOR OTHER TYPES OF HYPOTHESES OR CUE ATTENDS, CONSULT TABLE 1. THE STATEMENTS ARE ABOUT PICTURE 3, "I AND MY VILLAGE."

HA = Hypothesis-Action

HT = Hypothesis-Thought

HNO = Hypothesis-Nature of Object

HS = Hypothesis-Sensation

HC = Hypothesis Context

"The man with the green face is probably a priest: notice the cross around his neck. . . ."

"He might be the animal's master . . . or he could be a farmer. . . ."

"The tree looks as if it's magical: notice the way it appears to glow or twinkle . . . it's not very naturalistic looking. . . ."

"It appears to be a dream sequence: I think it's a very quiet little village in Europe, a long time ago . . . the figure and houses in the upper left are upside down, and the colors used on the large man and animal are unusual . . . the size relationships are unnatural . . . like a dream. . . ."

"The small animal which is being milked looks uncomfortable . . . one front foot is tied and she looks like she's tugging to get loose. . . ."

"The small man with the scythe is stooped a bit . . . as if he's weary from his labors. . . ."

(TOTALS)

THE CORRECT CODING FOR THESE STATEMENTS IS ON THE NEXT PAGE.

HNO(1) 2LO { "The man with the green face is probably a priest: / notice the
 (1) LO LO cross around his neck. . . .")

(The hypothesis is about the man's social role; hence, it is classified HNO. Only one LO is evidence for this hypothesis; the second LO is coded as a simple LO.)

2HNO { "He might be the animal's master . . . / or he could be a farmer. . . .")

(Here are two hypotheses about social role; hence, HNO.)

HNO(3) 2SQ ST { "The tree looks as if it's magical: / notice the way it appears
 (1) SQ (1) SQ (1) ST to glow or twinkle . . . / it's not very naturalistic looking. . . .")

(The hypothesis is about the nature of the object, tree; hence, HNO. Three pictorial references are mentioned, the last being an observation about the style in which the tree is rendered.)

HNO(5) 3HC 4LO 2C US { "It appears to be a dream sequence: / I think it's a very quiet
 HC HC (1) LO little village / in Europe, / a long time ago / . . . the figure / and
 (1) LO (2) C houses / in the upper left are upside down, / and the colors used
 LO LO in the large man and animal are unusual . . . / the size relation-
 US ships are unnatural . . . like in a dream. . . .")

(The first hypothesis is about the nature of the situation represented, followed by three hypotheses about context. Pictorial evidence cited to support the HNO is then named: two LO's which are upside down; two unusual colors; and one Unique Schemata. Notice that the color is what is unusual in the second instance, therefore two complexity points are given for colors used on the man and the animal. The two LO categories mentioned in the supporting statement are also recorded.)

2HA HSC(1), LO { "The small animal which is being milked / looks uncomfortable /
 (1) LO HA . . . one front foot is tied / and she looks like she's tugging
 to get loose. . . .")

(Evidence for the HS hypothesis is coded as a complexity point and double coded for the category mentioned: LO. Note that the hypothesis which describes the animal is recorded: HA. Another HA hypothesis, which is given as a supporting one for the HS, is recorded as an independent HA, since we have no coding system for registering supporting hypotheses in relation to the major hypothesis.)

^{LO} ^{LO} ^{(1) SH}
 HS(1), SH } "The small man with the scythe is stooped a bit . . . /as if
 ^{2 LO} ^{HS}
 he's weary from his labors. . . .")

(The man's shape is described and given as evidence for the HS.)

5 HND(9) (TOTALS)
 3 HC
 2 HA
 2 HS(2)
 9 LO
 2 SQ
 ST
 2 C
 US
 SH

Affective reference. This category classifies statements which refer to emotions ascribed to characters portrayed, or to the emotions evoked in the viewer. Under this heading are two divisions: affect and subjective feeling.

(HAF) Hypothesis-affect. The HAF coding is used for hypotheses which ascribe emotions to individuals represented. Usually--though not always--there is some reference to situations or actions portrayed in the work.

- HAF HC { "He feels frightened/^{HAF}because there is a storm^{HC} coming up and. . . .")
- HAF HA { "He is sad/^{HAF}because one of his doves^{HA} has escaped from the cage. . . .")
- HAF, HT { "He's happy/^{HAF}because the man is telling him a funny story. . . .")^{HT}
- 3 HAF { "He's melancholy^{HAF}. . . very gay^{HAF}. . . feeling good^{HAF}. . . .")

(HSF) Hypothesis-subjective feeling. The HSF coding is used for hypotheses which refer to emotions evoked in the viewer by the subject matter or by expressive attributes of the work.

- HSF { "I think this picture makes you feel scared because. . . .")^{HSF}
- HSF { "This painting is supposed to make you feel happy because. . . .")^{HSF}
- HSF { "This painting is supposed to make you appreciate. . . .")^{HSF}
- 4 HSF { "This painting makes me feel . . . /uneasy^{HSF} . . . /scared^{HSF} . . . /joyful^{HSF}. . . .")
- HSF { "To me, this painting is very joyful. . . .")^{HSF}

CODE THESE STATEMENTS, REFERRING TO "I AND MY VILLAGE." THESE ARE CUE ATTENDS (CONSULT TABLE 1) AND VARIOUS TYPES OF HYPOTHESES MIXED WITH THE HSF AND HAF HYPOTHESES.

HA = Hypothesis-Action

HS = Hypothesis-Sensation

HNO = Hypothesis-Nature of Object

HC = Hypothesis-Context

HSF = Hypothesis-Subjective Feeling

HAF = Hypothesis-Affect

"The face peering out of the church door is strange: she's sad-faced, as if she has gone to the church to grieve. . . ."

"The clouds look very threatening, as if it might storm . . . perhaps the man with the scythe is afraid of the storm, so he's going in. . . ."

"The picture gives me an eerie feeling: perhaps it's the brooding quality of the upper part . . . the clouds are so turbulent-looking . . . it's a strange mixture of sadness and hope . . . the left side of the sky is lighter, happier colors . . . I guess it's supposed to make you feel both the melancholy and joyous side of life. . . ."

(TOTALS)

CORRECT CODING IS ON THE NEXT PAGE.

HAF(1) { "The face peering out of the church door is strange: / she's
 EQ (1) sad-faced, / as if she has gone to the church / to grieve. . . ."
 2HA HA HAF
 US

(This is a little difficult. The first cue attend simply identifies the US of the face as "strange." The next cue indicates that the viewer has differentiated more specifically what is strange about the face: it is an expressive quality of sadness. From this second cue attend, the viewer goes on to make two inferences about actions and affect. The second cue attend is the one which is coded as a complexity point for HAF, since it is most logical that it is this cue attend which led to the inference.)

HC(1), EQ { "The clouds look very threatening, / as if it might storm . . . /
 LO perhaps the man with the scythe is afraid of the storm, / so
 HAF, HA HA he's going in. . . ."

(The cue attend which leads to the inference about the storm is the threatening quality of the clouds; hence, the EQ is given as a complexity point for the HC. The HAF makes an inference about the man's feelings; it is followed by an hypothesis about his actions.)

HSF(2) { "The picture gives me an eerie feeling: / perhaps it's the
 2EQ (1) EQ brooding quality of the upper part . . . / the clouds are so
 2LO (1) EQ turbulent-looking . . . / it's a strange mixture of sadness and
 PQ PQ hope . . . / the left side of the sky is lighter, / happier colors
 C (1) EQ
 HSF(1) . . . / I guess it's supposed to make you feel both the melan-
 EQ HSF choly and joyous side of life. . . ."

(The first HSF is supported by descriptions of the EQ of the upper part of the painting and the EQ of the clouds. It is followed by a descriptive statement about the total quality of the painting. Then another cue attend follows about the EQ of the color of the sky; this EQ supports the second HSF. LO and C points, which are cue attends, but are not direct pictorial evidence for the hypotheses, are coded as simple points.)

2HAF(1) 5EQ (TOTALS)
 3HA US
 HC(1) 3LO
 3HSF(3) PQ
 C

NOW THAT YOU ARE VERY SKILLFUL IN CODING COMPLEX HYPOTHESES, GO ON TO THE NEXT GROUP.

Symbolic reference. The viewer indicates that what is presented specifically functions as a metaphor for a larger abstraction. Statements reflect an awareness that the presentation is an expression of a philosophical framework, or the communication of a universal human condition. The work, or parts of the work, are seen as symbolizing a universal or generic concept such as justice, man's inhumanity to man, or the drama of birth or death. Under this heading are three divisions: symbolic aspect, thematic, and fantasy.

(HSA) Hypothesis--symbolic aspect. The HSA coding is used for hypotheses relating to the significance of particular aspects or parts of the painting.

HSA { "The birds stand for love . . . ^{HSA} (they are looking ^{HA} at each other/
 HA, HSA { to symbolize friendship ^{HSA} between man and beast . . . ^{HSA} (the bird-
 HSA { cage means that the ^{HSA} man is empty . . . it shows emptiness, as
 if he felt emptiness. . . .")

(HTH) Hypothesis--thematic. The HTH coding is used for hypotheses which identify a theme or major idea expressed in the painting. No particular aspects of the painting need be mentioned; an interpretation of the painting as a whole is made. However, in some complex hypotheses, either visual and formal properties, or subject matter components may be cited as supporting evidence for the hypothesis regarding the theme.

HTH { "stands for the tragedy of human existence . . . ^{HTH} (the love of a
 2HTH { mother for her child . . . ^{HTH} (the horrors of war . . . ^{HTH} symbolizes
 HTH { life and growing things . . . ^{HTH} is an expression of the fact that
 HTH { man's life is composed of memories ^{HTH} and dreams as well as his
 everyday activities and thoughts. . . .")

In the following response, notice that HTH supersedes any HA or HT hypotheses. "That he wants to be a violinist" is considered as part of the thematic hypotheses, describing the content of the dream. The pictorial references, which if considered alone would be classified as HA, are coded as complexity points, with the LO's double coded. HTH also supersedes Hypothesis-Sensation, Nature of Object, and Context.

HTH

HTH(3) { "I think it's just somebody's dream, that he wants to be a
 5LO { violinist . . . /because you don't see ^{(1) LO} people flying /or ^{(1) LO} dogs
 climbing on the ^{LO} roof . . . /and he's very big . . . /and there's
 another ^{(1) LO} person doing something with a ^{LO} violin . . . that's
 unusual. . . .")

(HF) Hypothesis-fantasy. The HF coding is used for hypotheses which reflect the fanciful invention of unique or novel concepts triggered by the depicted matter, but only remotely related to it. Such hypotheses exemplify a creatively inventive imagination.

HF { "He's flying up in the air because he ate too much of that new
 HF { 'PUFFY-LITE' cereal for breakfast this morning . . . (he really
 HF { doesn't mind flying ^{HF} around, though: he escapes having to work
 in the office . . . (maybe he'll change his ^{HF} occupation; become
 HF { an "overseer" for the vice squad . . . (or maybe he'll get a job
 2 HF { with the ^{HF} ballet . . . /he would become famous for his ^{HF} mighty
 leaps and jumps!")

HF and HSA are frequently associated with or used as supporting hypotheses for HTH. They are coded independently associated with or used as supporting hypotheses for HTH. They are coded independently in their own category.

HTH, HSA { "This represents the tragedy of human existence: ^{HTH} / the distorted
 face of the woman symbolizes man's grief and rage at the evil
 of life . . .) ^{HSA} (the figure beating the others stands for the
 HSA { inhuman use of authority to force others to conform to the will
 of a few . . .) ^{HF} (this might even represent what could happen in
 HF { a world gone mad with power and greed after technology has
 destroyed the human qualities we now know exist. . . .")

THESE STATEMENTS REFER TO PICTURE 3, "I AND MY VILLAGE." CODE THE HYPOTHESES YOU FIND.

HSF = Hypothesis-Subjective Feeling	HSA = Hypothesis-Symbolic Aspects
HTH = Hypothesis-Thematic	HAF = Hypothesis-Affect
HF = Hypothesis-Fantasy	HS = Hypothesis-Sensation

"I think this picture is the representation of Chagall's boy-hood memories. . . ."

"I think the tree he's holding is the Tree of Life. . . ."

"This is the dream of simple village life, where life is calm and serene . . . and man is filled with kindness. . . ."

"I think this is a picture of what can happen when a small travelling circus gets stranded in a country village . . . the clown has just picked a magic plant from the forest and is about to feed it to the animal . . . the animal knows what's ahead; he can see into the man's eyes and read his thoughts; he's going to be changed into another animal to give milk to help feed the troop! One poor former acrobat has been put to work as a farmhand, while another is hanging by her toes, just to keep in practice. . . ."

"The pink shape is the path of life, which leads to exciting adventures."

(TOTALS)

CHECK YOUR CODING BY REFERRING TO THE NEXT PAGE.

HTH { "I think this picture is the representation of Chagall's boy-
hood memories. . . .")

HSA { "I think the tree he's holding is the tree of life. . . .")

(The first hypothesis refers to the idea conveyed by the whole picture: HTH; the second refers to the symbolism of one element in the painting: HSA.)

HTH { "This is the dream of simple village life, where life is calm
HAF and serene . . . /and man is filled with kindness. . . .")

(The viewer states the idea expressed by the painting, with some elaboration, but without citing pictorial evidence. One could assume that the inferences are made because of observations of the depicted figure's actions.)

HTH { "I think this is a picture of what can happen when a small
travelling circus gets stranded in a country village . . .) (the
HF clown has just picked a magic plant from the forest and is about
to feed it to the animal . . .) (the animal knows what's ahead;
HF he can see into the man's eyes and read his thoughts; (he's going
to be changed into another animal to give milk to help feed the
2 HF troop!) (One poor former acrobat has been put to work as a farmhand,)
HF while another is hanging by her toes, just to keep in practice. . . .")

(The first statement indicates the major idea conveyed in the painting: HTH. The succeeding statements are fantasies related to the theme.)

HSA { "The pink shape is the path of life, which leads to exciting
adventures.")

2 HSA
3 HTH (TOTALS)
5 HF

ON THE FOLLOWING PAGE ARE MORE HYPOTHESES WHICH MAY BE CLASSIFIED AS SYMBOLIC REFERENCES.

CODE THESE STATEMENTS ABOUT "I AND MY VILLAGE." SOME OF THE HYPOTHESES ARE COMPLEX, WHICH MEANS THAT YOU MUST DOUBLE CODE PARTS OF THE HYPOTHESES AS CUE ATTENDS. CONSULT TABLE 1 AS NEEDED.

HSA = Hypothesis-Symbolic Aspect

HF = Hypothesis-Fantasy

HTH = Hypothesis-Theme

HC = Hypothesis-Context

"the way the man and animal are looking at each other symbolizes the mutual trust and friendship between man and beast . . . the circle which forms part of the man's face and part of that of the beast also symbolizes this mutualness of concern . . . a 'circle of friendship' which includes all living creatures. . . ."

"this is an expression of a state of mind . . . imagination and fantasy predominate . . . one of those 'secret places' where man can go in reverie or daydream or memory . . . a place of gentle domesticity; tranquil, bucolic, and full of love between all who dwell therein. . . ."

"the magic tree in his hand functions to transport him, and the animal who is his kindly companion, on a journey within: a journey to a fabulous land whose 'little people' represent various aspects of human nature: the energy and industry represented by the man with the scythe and the woman milking the animal . . . the religious aspect represented by the woman's face in the church and the cross on the man . . . the upside-down woman and houses may represent the ability of man to imagine states of being or sensations. . . ."

(TOTALS)

CHECK YOUR CODING ON THE FOLLOWING PAGE.

HSA { "the way the man and animal are looking at each other symbolizes
the mutual trust and friendship between man and beast . . .) (the
circle which forms part of the man's face and part of that of the
beast also symbolizes this mutualness of concern: a 'circle of
friendship' which includes all living creatures. . . .")

(Two hypotheses infer a symbolic function of two configurations in the painting. The phrase following the colon is not coded as a separate HSA, since it is an elaboration of the metaphor, not a description of a new symbol.)

HTH { "this is an expression of a state of mind . . . imagination and
fantasy predominate . . .) (one of those 'secret places' where
man can go in reverie or daydream or memory . . .) (a place of
gentle domesticity: /tranquil, /bucolic, /and full of love between
all who dwell therein. . . .")

(The first hypothesis is about an abstraction, "state of mind"; it is classified HTH. The second hypothesis deals with the painting as a total art symbol of one secret place (state of mind). The third hypothesis makes an inference about secret place (HC), and mentions some expressive qualities which are associated with this place of gentle domesticity. The fourth hypothesis (HC) makes a slightly different inference about the kind of place as one which is characterized by exchange of love between all its inhabitants.)

HF { "the magic tree in his hand functions to transport him, and the
animal who is his kindly companion on a journey within:) (a
journey to the fabulous land whose 'little people' represent
various aspects of human nature: / the energy and industry repre-
sented by the man with the scythe and the woman milking the
animal . . . / the religious aspect represented by the woman's
face in the church and the cross on the man . . . / the upside-down

(1) LO (2) LO
 woman and houses may represent the ability of man to imagine
 states of being or sensations. . . .")

(The first hypothesis is a fantasy in which the tree is seen as a magic instrument. The second hypothesis begins with the statement that the 'little people' represent various aspects of human nature, and the phrases following elaborate various aspects, citing LO's as exemplars of those aspects. The aspects themselves are not coded as hypotheses, as they are elaborations of the phrase "various aspects.")

4 HSA(7) (TOTALS)
 HTH
 2 HC
 HF
 2 EQ
 11 LO

MOVE ON TO THE NEXT PAGE FOR FURTHER EXPLANATIONS AND EXERCISES.

VIII. Contextual Attributes

In this category are inferential statements that indicate awareness of the art form as a reflection of cultural influences. The work is seen as a product or exemplar of a particular historical evolution, of a particular school and artistic trend, or of a particular artist.

(HAR) Hypothesis-artist. The HAR coding is used for hypotheses about the intent of the artist, the artist as a personality, or the artist's life as reflected in the work.

"He must have felt very sad when he painted this. . . ."

"He wants to show the influence of religion on the life of the individual. . . ."

"He was mad . . . unhappy . . . crazy . . . a painstaking craftsman . . . a genius . . . a romantic. . . ."

ON THE NEXT PAGE ARE SOME CUES AND HYPOTHESES FOR YOU TO CLASSIFY. YOU MAY HAVE TO REFER TO THE CUE-ATTENDANCE CATEGORIES TO REFRESH YOUR MEMORY.

CODE THESE STATEMENTS ABOUT "I AND MY VILLAGE." THERE ARE CUE ATTENDS AS WELL AS HYPOTHESES. CONSULT TABLE 1 AS NEEDED.

HA = Hypothesis-Action	HAF = Hypothesis-Affect
HT = Hypothesis-Thought	HSF = Hypothesis-Subjective Feeling
HS = Hypothesis-Sensation	HSA = Hypothesis-Symbolic Aspect
HNO = Hypothesis-Nature of Object	HTH = Hypothesis-Thematic
HC = Hypothesis-Context	HF = Hypothesis-Fantasy
HAR = Hypothesis-Artist	

"This is a painting about a folk culture. . . ."

"It's apparent to me that the artist felt very nostalgic when he painted this . . . he wanted to convey a folk-culture orientation. . . ."

"The design is quite complex: using many bright colors and a variety of shapes. . . ."

"This conveys a very happy, fanciful mood; the artist must have been feeling rather joyful when he conceived this idea . . . the colors used are mostly 'happy' ones: reds, yellows, clear greens, and blues . . . altogether a delightful record of village life . . . even the way he painted it--the little dot-like brush strokes at the upper left, and the dots of color around the trees--conveys vitality and sparkle. . . ."

CHECK YOUR CODING ON THE NEXT PAGE.

HTH { "This is a painting about a folk culture. . . .")

(This statement relates to the theme of the painting; hence, HTH.)

HAR { "It's apparent to me that the artist felt very nostalgic when
HAR { he painted this . . .) (he wanted to convey a folk-culture orien-
HAR { tation . . .) (perhaps represent a memory of his childhood. . . .")

(One statement is a hypothesis about the artist's mood; the next two are about his intent; therefore, all are classified HAR.)

DO(2) { "The design is quite complex; / using many bright colors / and a
C, SH { variety of shapes. . . .")

(The first part of the statement is an observation about composition; therefore, it is classified PO; the second part consists of two cue attends which elaborate the PO.)

PQ
HAR { "This conveys a very happy, fanciful mood; / the artist must have
been feeling rather joyful when he conceived this idea . . .)
C(5) { the colors used are mostly 'happy' ones: / reds, / yellows, / clear
EQ(5) { greens, / and blues . . .) (altogether a delightful record of village
life . . . / even the way he painted it- / the little dot-like brush
HTH { strokes at the upper left, / and the dots of color around the tree-- /
T(2) { conveys vitality and sparkle. . . .")
2SH
C
2EQ
LO

2 HTH	PQ	3 EQ(5)
4 HAR	3 C(5)	T(2)
DO(2)	3 SH	LO
(TOTALS)		

(This is a difficult passage to code, so if you did correctly on the first try, you are a well-trained judge! The first two codings seem obvious. However, the next section needs explanation. The marginal totals show that the named colors are coded as complexity points for two categories of reference: Color and Expressive Quality. We interpret these color words as "class" mentions for both "colors" and "happy."

The HTH classification seems obvious. The T classification is clear enough, but the reason for classifying "dot-like" as shape may not be. A dot has a distinctive shape as a dot rather than as a line or some other brush stroke; therefore, the shape classification. These references to shape are pictorial evidence for the statement about technique; therefore, they are coded as complexity points C and LO, which are used in the description. The nouns "vitality" and "sparkle" indicate qualities perceived by the viewer as being the technique. They are not pictorial evidence for technique, but are associations evoked by the technique and are coded independently of the T classification.)

(HST) Hypothesis--style. The HST coding is used for inferences that classify the work as exemplifying a particular artist, school, or period. Hypothetical statements about style differ from descriptive statements about style. Descriptive statements identify salient characteristics of rendition or technique. Hypothetical statements indicate that the viewer has inferred a stylistic classification from the salient features of the work.

(style of a particular artist) "the brush strokes make me think it's a Van Gogh . . . the quality of line marks it as a Picasso . . . I can tell from the color it's a Cezanne. . . ."

(style of a particular school) "an example of cubism . . . expressionism . . . surrealism. . . ."

(style of a particular period) "it's before they painted in hard edge style . . . forerunner of the expressionists . . . after the Pop Art movement began. . . ."

CODE THE FOLLOWING STATEMENTS, REFERRING TO PICTURE 3, "I AND MY VILLAGE."

HA = Hypothesis-Action

HTH = Hypothesis-Thematic

HT = Hypothesis-Thought

HST = Hypothesis-Style

HAF = Hypothesis-Affect

HSA = Hypothesis-Symbolic Aspect

"This is a very active painting, with lots of diagonal lines in it . . . the suspended figure and the inverted houses, as well as the irrational size relationships are typical of Surrealism . . . it must be a Chagall . . . one of his earlier works, since he presents the Russian village life theme rather than the romantic love theme he used so frequently following his wife's death. . . ."

"A very expressive painting, painted with much attention to the exciting relationships of shapes to each other. . . ."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

PQ, L { "This is a very active painting, / with lots of diagonal lines
in it. . . .")

(The PQ classification is made in terms of a kinesthetic concept of motion, with a mention of line elements.)

HST(3) ^{(1) LO} "The suspended figure/and the inverted houses,/as well as the
^{(1) US} irrational size relationships/are typical of Surrealism . . .)
 2HST ^{HST} {it must be a Chagall . . . } ^{HST} (one of his earlier works), (since he
 HTH {presents the Russian village life theme,} (rather than the romantic
 HTH {love theme he used so frequently following his wife's death. . . .")

(The hypothesis about surrealistic style is supported by pictorial evidence ("figure," "houses"). Two more HST's follow: one about the artist, and one about the chronology of the work. Two hypotheses about theme follow.)

$\begin{matrix} PQ \\ T, SH \end{matrix} \left\{ \begin{array}{l} \text{"A very expressive painting, / painted with much attention to the} \\ \text{exciting relationships / of shapes to each other. . . ."} \end{array} \right.$

(The pervasive quality of the painting is noted. Next comes a statement which identifies the technique used.)

3 HST(3)
2 HTH (TOTALS)
2 PQ
L
2 LD
VS
T
SH

YOU HAVE NOW LEARNED ALL THE CATEGORIES FOR HYPOTHESIS GENERATION.
GO ON TO THE FINAL GROUP OF CATEGORIES, WHICH CLASSIFY EVALUATIVE-
JUDGMENTAL RESPONSES.

EVALUATIVE-JUDGMENTAL CATEGORIES

IX. Affective, Objective Responses

The kinds of responses in this category are predicated upon (a) the types and number of cues attended to by the viewer, (b) the kinds of inferences he makes from the particular combination of cues he is sensitive to, and (c) his inner store of conceptions and attitudes. They may be statements of preference, expressions of like or dislike, or assignments of value to the work.

(AJN) Affective judgment, not supported. The AJN coding is used for judging a work in terms of the response it evokes from the viewer. There is no attempt to support the like or dislike expressed in terms of any feature of the work, or in terms of any criteria of excellence.

"I like it . . . I can't stand it . . . it disgusts
me. . . ."

(AJS) Affective judgment, supported. The AJS coding is used for responses which describe the viewer's personal reaction to the painting--with reasons for his like or dislike based on what he sees in the painting.

AJS(1) } "I like this ^{AJS} painting, / because I think the ^{(1) C} warm colors used /
C, EQ } give a radiance which is pleasing. . . ."

AJS(1) } "I like this ^{AJS} / because the ^{LC} scene shown is a happy one, / which ^{(1) EQ} makes ^{HSF}
LC, EQ } me feel good. . . ."

CODE THESE JUDGMENTS. THEY ARE EVALUATIONS OF PICTURE 3, "I AND MY VILLAGE." CONSULT TABLE 1 TO CODE OTHER CATEGORIES YOU FIND.

AJN = Affective Judgment, Not Supported

AJS = Affective Judgment, Supported

"I really respond to this painting: because the colors are exciting, their arrangement is dynamic--notice the sweep of the pink area across the canvas--the subject matter is charming . . . country village folk, going about their daily business with calm and joy. . . ."

"I don't get this painting . . . lots of different strange shapes and colors . . . all mixed up . . . ugh!"

"I think this is great! . . . I really like it!"

"I think this is a nice painting: I like gay colors and round shapes. . . ."

"I can't say I like this. . . ."

(TOTALS)

CHECK YOUR CODING ON THE NEXT PAGE.

^{AJS}
 AJS(5) { "I really respond to this painting: / because the colors are ^C
^{2C, LO} (1) EQ / ^{PO} exciting, / their arrangement is dynamic- / notice the sweep of the ^{(1) EQ}
^{4EQ} ^C / pink area across the canvas- (the subject matter is charming / ^{(1) LO} ^{(1) EQ}
^{PO} ^{SH}
^{HTH} { . . . country village folk, going about their daily business
 HTH { with calm and joy. . . .")

(AJS is supported by mention of exciting colors, by the dynamic arrangement of colors, and by the mention of the charming subject matter. The sweep of the pink area, while describing an expressive quality, is an elaboration of the idea of dynamic arrangement. Synonymous with the mention of the subject matter is an hypothesis about the theme of the painting.)

^{AJS}
 AJS(3) { "I don't get this painting . . . / lots of different strange
^{SH, C, PQ} (1) SH / (1) C . . . / all mixed up . . . (ugh!" ^{AJN}
 AJN (1) PQ

(AJS is supported by mention of colors and sizes, as well as by a PQ. "Ugh!" expresses a strong but unsupported affective response and is coded AJN.)

^{AJN}
 2 AJN { "I think this is great! . . . / I really like it!" ^{AJN}
 (Two AJN, not supported by citing any evidence.)

^{AJS}
 AJS(2) { "I think this is a nice painting; / I like gay / colors / and
^{EQ, C, SH} (1) SH / round shapes. . . .")

(The AJS is supported by mention of gay colors and shapes.)

^{AJN}
 AJN { "I can't say I really like this. . . .")

(This is merely an expression of dislike with nothing to support it; hence, AJN.)

3 AJS(10)
 4 AJN (TOTALS)
 HTH
 4 C
 LO
 5 EQ
 PO
 2 SH
 PQ

(OEN) Objective evaluation, not supported. The OEN coding is used for statements that evaluate the quality of the painting as an art object, but that are not supported by explicit reference to particular features of the work, or by reference to criteria for judgment of excellence.

"This is a good example of surrealism. . . ."

"This is an excellent painting . . . this is a poor painting . . . this looks like a fake reproduction . . . this doesn't look like anything at all. . . ."

(OES) Objective evaluation, supported. The OES coding is used for a qualified response with stated reasons for valuing the work which make the judgment subject to public corroboration or discussion. Justification of value is made on the basis of explicitly stated criteria.

One criterion, that of internal consistency, poses the question, How coherent is the work in its expression?

If a viewer considers this criterion, he looks at the execution of the work in relation to its theme. The consistency of the expressive qualities and formal elements are evaluated as they contribute to the total work. The relationships between elements and qualities which make for coherency are described and used as justification for the judgment rendered. Below is a coded example.

OES(3)	{	^{OES}	"This is an excellent painting/	^{(1) PO}	because the artist <u>has unified</u>
2 PO(3)	{	^{(1) C}	the work through the use of warm colors <u>repeated,</u> /	^{(1) PO}	but he has
2C, SH	{	^{(1) PO}	varied the colors/	^{(1) C}	and shapes <u>enough to avoid monotony.</u>
PO(2)	{	^{(1) SH}	shapes and colors are related in close harmony/	^{(1) PO}	so as to be
C, SH	{	^{HTH}	consistent with the theme of convivial joy suggested by the		subject matter: the dancers amusing themselves at a fete.)
HTH	{				

^{(1) SQ}
^{(1) LO}
 PQ (2) { The textural qualities of the foliage, as well as those of
 SQ (3) { ^{(1) LO} the clothing ^{(1) LO} and skin of the people contribute to the feeling
 3 LO
 C { of pulsing life conveyed by the intense hues. . . .") ^{(1) C}

(In this complex response, the classifications are arranged hierarchically, as follows: The OES is supported by three references to PO: repetition, variation, and close harmony; which are in turn supported by references to color and shape. Hence, we have OES with three PO complexity points and each PO has complexity points for color and/or shape. Next comes an HTH; then a PQ statement, "feeling of pulsing life," which is supported by references to SQ and C, "intense hues." The SQ is in turn supported by references to three LO's: foliage, clothing, and skin.

Another criterion, that of external consistency, poses the question, How good an exemplar of a particular kind of painting is this one? If a viewer considers this criterion, he compares the work to rules of composition, and standards of excellence which are deemed appropriate for model members of the class of paintings to which it belongs. Below is a coded example.)

OES
 OES (2) { "This is an excellent example of abstract expressionism, since
 2 H/C { ^{(1) H/C} its paint and brush techniques record the work's genesis, and
 suggest the emotional state ^{(1) H/C} of the artist while producing the
 work.) (The tactile ^{SQ} sensations ^{HSA} which serve as icons for the
 HSA { qualities of exuberance and strength in human life are strongly
 SQ (3) { ^{(1) SH} stated in major areas ^{(1) C} of red and yellow ^{(1) C} which ^{PO} dominate the
 SH, 2 C { composition.) (Tensions ^{EQ} created by the ^{(1) L} linear elements which
 PO { act as a matrix to hold the color ^C areas ^{SH} together ^{HSA} suggest the
 PO (1), EQ { tensions of the human in action. . . .")
 L, C, SH
 HSA

(The OES is supported by two H/C references: "record of the work's genesis," and "suggest the emotional state," and one SQ is the subject of an HSA, but it also is exemplified by the red and yellow so two complexity points for SQ in terms of C are given. The PO, dominance, is exemplified by a reference to major areas, hence the complexity point is given for the shape category. Another PO in terms of linear elements is described, with other references to "tensions" and color and

shape. "Tensions," an EQ, also functions as the subject of the HSA, but is only coded once, as the EQ of the linear elements. HSA subsumes the EQ classification.)

ON THE NEXT PAGE ARE EXAMPLES OF TWO EVALUATIONS. YOU WILL HAVE TO READ VERY CAREFULLY AND THINK ABOUT HIERARCHICAL ARRANGEMENTS OF CUES WITHIN HYPOTHESES TO CODE THEM. GOOD LUCK!

CODE THE FOLLOWING EVALUATIONS. THEY REFER TO "I AND MY VILLAGE."
THERE ARE SOME HYPOTHESES AND CUES USED TO SUPPORT THE JUDGMENTS. READ
CAREFULLY. CODE ALL EVALUATIONS, HYPOTHESES, AND CUES. CONSULT TABLE 1.

OEN = Objective Evaluation, Not Supported

OES = Objective Evaluation, Supported

"I think this is one of Chagall's better attempts at
fantasy. . . ."

"This is an excellent example of surrealism; it has many
characteristics of surrealism, but is a distinctive personal
expression by Chagall. The defiance of gravity by figures
and houses lends a surrealistic quality to the work, as do
the unnatural colors used on the man's face and the animal's
neck . . . the 'illogical' size relationships between the
figures is another characteristic of Chagall, but in the
tradition of surrealism, which breaks all logical rules of
placement and juxtaposition of subject matter in an attempt
to convey the idea that these rules are in themselves unreal
. . . that they are merely man-made devices or conventions
which define a certain type of 'reality' . . . the symbols of
the man and animal are puzzling and unusual. . . ."

(TOTALS)

CHECK YOUR CODING BY TURNING TO THE NEXT PAGE.

OEN { "I think this is one of Chagall's better attempts at
fantasy. . . ." } ^{DEN}

(This classifies the work as a fantasy, and makes a judgment --unsupported by reference to aspects of the work--that the work is a good one: hence the OEN classification.)

OES { "This is an excellent example of surrealism; it has many
characteristics of surrealism, / but is a distinctive personal
expression by Chagall. / The defiance of gravity by figures /
and houses lends a surrealistic quality to the work, / as do the
unnatural colors / used on the man's face / and the animal's neck /
. . . the 'illogical' size relationships / between the figures
is another characteristic of Chagall, / but in the tradition of
surrealism, which breaks all logical rules of placement and
juxtaposition of subject matter / in an attempt to convey the
idea that these rules are in themselves unreal . . . (that they
are merely man-made devices or conventions which define a cer-
tain type of 'reality' . . . (the symbols of the man and animal
are puzzling and unusual. . . ." } ^{OES}
^{(1) LO} ^{(2) US} ^{(1) LO} ^{(1) LO} ^{(1) LO} ^{(1) LO} ^{(1) US} ^{(1) ST} ^{H/C} ^{HTH} ^{(1) LO} ^{(1) LO} ^{US} ^{US}

OES(4)
US(4)
4LO, C
OES(2)
ST, US, LO
HC
HTH
2US(2)
2LO

OEN
2 OES(6) (TOTALS)

4 US(6)

7 LO

C

ST

HC

HTH

(There are two OES at the beginning of this response: one referring to characteristics associated with surrealism; another referring to characteristics associated with Chagall. These two OES subsume any cue attends about Style or Artist. The OES referring to surrealism is supported by statements about US --defiance of gravity and unnatural colors--and each of these is supported by LO and C references. These responses are arranged hierarchically thus: OES [four complexity points for US]; US [four complexity points for LO references] with a color reference as part of the US.

The OES referring to Chagall is supported by another US, "illogical size relationships," with an LO mention, plus a

recognition of Chagall's style (ST). Next comes a statement about surrealism which is evidence of previous knowledge of art history, H/C. Then comes a statement of the observer's inference about the theme, HTH. Last comes a slightly ambiguous response: "the symbols . . . etc." Although it refers to the fact that the man and animal are symbolic, it does not explain what they symbolize. Therefore, we cannot classify the statement as HSA. However, the observer recognizes that the man and animal symbols are unusual and puzzling, which classifies the remark as two US references, in terms of LO's, "man" and "animal.")

References

- Acuff, B. Approaches to teaching for reflective thinking in art education. Stanford Institute on Teaching for Reflective Thinking, Summer, 1969.
- Barron, F. Complexity-simplicity as a personality dimension. Journal of Abnormal and Social Psychology, 1953, 48, 163-72.
- Berlyne, D. Conflict arousal and curiosity. New York: McGraw-Hill, 1960.
- Broadbent, D. Perception and communication. New York: Pergamon Press, 1958.
- Child, I. A study of esthetic judgment. New Haven: Yale University Press, 1964.
- Elliott, A. Three hundred years of American painting. New York: Time, Inc., 1957.
- Evaluation of art teaching. In E. W. Eisner & D. W. Ecker (Eds.), Readings in art education. Waltham, Mass.: Blaisdell Publishing Company, 1966. Pp. 96-120.
- Feldman, E. Art as image and idea. Englewood Cliffs, N. J.: Prentice-Hall, 1967.
- Gardner, R., Holtzman, P., Klein, G., Lurton, H., & Spence, D. Cognitive control: A study of individual consistencies in cognitive behavior. Psychological Issues, 1. New York: International University Press, 1959.
- Holsti, O. Content analysis for the social studies and humanities. Menlo Park, Calif.: Addison-Wesley, 1969.
- Kandinsky, W. Concerning the spiritual in art. New York: Wittenborn & Schultz, 1955. Reprinted from 1912 edition.
- Lanzetta, J. Information acquisition in decision making. In O. J. Harvey (Ed.), Motivation and social interaction. New York: Ronald Press, 1963. Pp. 239-65.
- Maltzman, I. On the training of originality. Psychological Review, 1960, 67, 229-42.
- Miller, G. The magical number seven, plus or minus two: Some limits on our capacity for processing information. Psychological Review, 1956, 63, 81-97.

- Salomon, G., & Suppes, J. Learning to generate subjective response uncertainty: The effects of training, verbal ability and stimulus structure. Journal of Personality and Social Psychology, 1972, 23 (in press).
- Schutz, W. On categorizing qualitative data in content analysis. Public Opinion Quarterly, 1958, 22, 503-15.
- Shannon, C. E., & Weaver, W. Mathematical theory of communication. Urbana: University of Illinois Press, 1949.
- Sieber, J. Lessons in uncertainty. The Elementary School Journal, 1969, 69, 304-12.
- Sieber-Suppes, J., & Acuff, B. Response complexity and esthetic inquiry: Some determinants of the complexity of children's responses to art. In preparation.
- Sieber, J., & Lanzetta, J. Conflict and conceptual structure as determinants of decision-making behavior. Journal of Personality, 1964, 32, 622-41.
- Sieber, J. E., & Lanzetta, J. T. Some determinants of individual differences in pre-decision information processing behavior. Journal of Personality and Social Psychology, 1966, 4, 561-71.
- Simon, M. The Shorewood art reference guide. New York: Shorewood, 1970.
- Smith, R. Methods of esthetic education. Studies in Art Education, 1968, 9, 21-26.
- Weitz, M. Philosophy of the arts. Cambridge: Harvard University Press, 1950.
- Wilson, B. An experimental study designed to alter fifth and sixth grade students' perception of paintings. Studies in Art Education, 1966, 8, 33-42.

A P P E N D I X E S

APPENDIX A

ESTABLISHING THE RELIABILITY OF CATEGORIES

As we used the category system to classify remarks, we encountered five major difficulties related to validity and interjudge agreement:

Some of the categories were defined ambiguously. We redefined these categories until we were satisfied with their usefulness and clarity.

Some categories proved to be so closely related and so frequently associated in discourse that rules were required for distinguishing a borderline between them. See, for example, the distinction between hypothetical action and thought (HA, HT) categories explained on pages 81 and 82.

Hypothetical statements--especially Hypothesis-Nature of Object (HNO)--frequently gave several literal object or literal context cues. We decided that a simple HNO statement (i.e., one that does not cite pictorial evidence in support of the inference) in which Literal Object or Literal Context cues are mentioned would supercede the LO and LC classifications.

It was necessary to devise a system of ranking among some categories. Principle of Organization (PO), Technique (T), Color (C), and Comparative Relationships (CR) categories are frequently used together in discourse, with the T and CR categories serving as support for the PO statement.

The greatest difficulty was in securing interjudge agreement for obscure or ambiguous responses. It was sometimes necessary to change the phrasing of the response in order to arrive at agreement about the speaker's

intent or meaning before coding could proceed. Doubtful cases were resolved by discussion among judges.

Reliability

Most of the problems were resolved by comparing and discussing judges' codings of sample transcripts. After the first training period, each judge coded the same transcript independently. Judges then met to compare their opinions on the division of the protocol into thought units, and the classification of units into categories. There were three sources of disagreement: individual idiosyncracies or misunderstandings of categories; ambiguous categories; and ambiguities in the wording of the protocol. (A set of responses by an individual is referred to as a protocol.) Further revisions were made on the basis of this information according to the recommendations of Schutz (1958).

Following the second phase of training, each of the judges independently coded approximately 100 protocols. A comparison of these protocols was made to determine the degree of agreement between judges. Judge 1 was taken as a standard. The percentage of agreement of judges 2 and 3 with judge 1 was calculated for each category. The percentage of agreement for each category is shown in Table 2. The coefficient of reliability was calculated by determining the ratio of coding agreements to the total number of coding decisions made for each category (Holsti, 1969).

Some categories were not used frequently enough during this initial period to warrant calculating the percentage of agreement. These categories were retained for classification, however, since they were found to be useful in the actual content analysis of the statements coded later.

Table 2
Inter-Judge Agreement on Coding 100 Protocols

Cue-Attendance Categories				
Name of Category	All Agree Judges 1,2,3	Judges 1,2 Agree	Judges 1,3 Agree	Average 1&2, 1&3
Material	1.00	1.00	1.00	1.00 *
Technique	.60	.70	.70	.70
Surface Quality	.91	.91	1.00	.96
Literal Object	.94	.97	.95	.96
Literal Context	.57	.86	.71	.79 *
Color	.97	.98	.99	.99
Line	.69	1.00	.69	.85
Shape	.94	.93	.98	.96
Light	.89	.89	1.00	.94 *
Comparative Relationship	.55	.89	.56	.72 *
Principle of Organization	.80	1.00	.80	.90 *
Expressive Quality	1.00	1.00	1.00	1.00 *
Unique Schemata	1.00	1.00	1.00	1.00 *
Pervasive Quality	.50	.50	.50	.50 *
Art Form	(not mentioned by any individual)			
Historical/ Cultural	(not mentioned by any individual)			
Style	.38	.50	.50	.50 *

* Fewer than 10 responses.

(Continued on next page)

Table 2 (Continued)

Hypothesis-Generation Categories

Name of Category	All Agree Judges 1,2,3	Judges 1,2 Agree	Judges 1,3 Agree	Average 1&2, 1&3
Hypothesis- Action	.56	.62	.83	.76
Hypothesis- Thought	.55	.81	.64	.71
Hypothesis- Sensations	.90	1.00	.90	.95
Hypothesis- Nature of Object	.63	.75	.75	.75
Hypothesis- Context	.74	.86	.81	.84
Hypothesis- Affect	.83	.92	.83	.88
Hypothesis- Subjective Feeling	(not mentioned by any individual)			
Hypothesis- Symbolic Aspects	1.00	1.00	1.00	1.00 *
Hypothesis- Thematic	.80	1.00	.80	.90
Hypothesis- Fantasy	1.00	1.00	1.00	1.00 *
Hypothesis- Artist	.71	.86	.91	.78 *
Hypothesis- Style	(not mentioned by any individual)			

Evaluative-Judgmental Categories

Affective Judgment, Not Supported	1.00	1.00	1.00	1.00 *
Affective Judgment, Supported	(not mentioned by any individual)			
Objective Evaluation, Not Supported	(not mentioned by any individual)			
Objective Evaluation, Supported	(not mentioned by any individual)			

APPENDIX B
RECORDING THE CODED PROTOCOL

In the foregoing sections of the manual, you learned how to code response units by writing the abbreviations of the category names at the left of the protocol.

In this section, you will learn how to transfer that information to a tally sheet. The tally sheet affords a way of determining the number of times each category is mentioned (i.e., the frequency distribution of responses). From this frequency distribution, a percentage distribution and an uncertainty score will be computed.

The next page shows a coded protocol, with totals for each category recorded in the margin. The coding of this protocol was then transferred to the tally sheet that follows. Notice that in the row of boxes following the $f \rightarrow$ the simple points are recorded in the upper left portion of the box, and the complexity points are recorded in the lower right portion.

A Coded Protocol of "I and My Village"

- ^C
 C(5) { "Very bright colors: / bright ⁽¹⁾ green / for the ^{LO} face . . . / a bright ⁽¹⁾
 3 LO { orange next to the ^{LO} face . . . / bright ⁽¹⁾ yellow on these ^{LO} houses / and
 down here . . . a nice ⁽²⁾ blue in the lower right and the upper left)
 L { . . . quite a few ^L curves . . .) (then, I see triangles: / like
 there's a triangle for the ⁽¹⁾ blue; / I see quite a few triangles up ⁽¹⁾
 SH(4) { here on the ^{LO} houses; / the ^{LO} face itself (animal) is a triangle: /
 2 C { there seem to be triangles ⁽¹⁾ right here in the ^C red area, / behind
 3 LO { those ^{LO} people. . . .")
- HTH
 HTH(1) { "It seems to me like Christmas, / because this looks like a ⁽¹⁾
 2 HNO(2) { Christmas tree; / and it looks like they're sort of friends (the ^{HNO}
 2 LO { animal and man). . . .")
- HT
 HT(1) { "This could be what the animal is thinking about: / this little
 LO { figure. . . .")
- HNO
 HNO(1) { "The animal has a necklace on: / it could be his leash. . . .")
 2 LO
- OEN
 OEN { "This is a very beautiful picture . . . / like a dream of a ^{HTH}
 HTH { special occasion, like Christmas, as I said. . . .")

^L
 3 C(5) (TOTALS)
 11 LO
 SH(4)
 2 HTH(1)
 3 HNO(3)
 HT(1)
 OEN

Tally Sheet for Coded Protocol of "I and My Village"

	I. MATERIAL ATTRIBUTES			II. LITERAL ATTRIBUTES			III. SENSORY ATTRIBUTES			IV. ORGANIZATIONAL ATTRIBUTES			V. EXPRESSIVE ATTRIBUTES			VI. CONTEXTUAL ATTRIBUTES			H - CUES		
	f+	PROB +	H +	M	T	SQ	LO	LC	C	L	SH	LT	CR	PO	EQ	US	PQ	AF	H/C	ST	TOTAL
							11/0		3/5	1/0	1/4										16/9

MEANING ATTRIBUTES			LITERAL REFERENCE			HA	HT	HS	HNO	HIC	AFFECTIVE REFERENCE			HAF	HSF	SYMBOLIC REFERENCE			HSA	HTH	HF	CONTEXTUAL ATTRIBUTES			HAR	HST	TOTAL
f+	PROB+	H+					1/1		3/3											2/1							6/5
H - HYPOTHESES																											

VIII.

AFFECTIVE OBJECTIVE RESPONSES			AJN	AJS	OEN	OES	TOTAL	H - EVALUATIVE-JUDGMENTAL
f+	PROB +	H +			1/0		1/0	

IX.

APPENDIX C

COMPUTING THE UNCERTAINTY (H) SCORE

The computation of the uncertainty (H) score was discussed briefly in the introduction. This appendix gives a step-by-step explanation and description of a procedure for computing the subjective response uncertainty of an individual as he responds to an art production.

Two kinds of information are needed:

1. A record (shown as a tally sheet) of the number of cues, hypotheses, and evaluative statements in each category.
2. The values of $p_i \log_2 \frac{1}{p_i}$ corresponding to values of p_i (see Table 3, p. 143).

The following is an overview of the steps we shall follow in order to compute the value of H:

1. Convert the frequency distribution of scores to a probability distribution.
2. Observe the probability value (p) of each category and determine the corresponding value of $p_i \log_2 \frac{1}{p_i}$ from Table 3.
3. Sum the values of $p_i \log_2 \frac{1}{p_i}$.

Ready?

Computation of Probability Distribution

What is a probability distribution?

The probability distribution of responses across a set of categories is a statement of the likelihood or probability that a given response will fall in each of the categories.

We assume that some response will definitely occur on every occasion, so the probability of some response is:

1. $p = .5$
2. $p = .25$
3. $p = 1.00$

Choose one.

If you answered:

1. No. $p = .5$ would mean that chances are there would be a response only half of the time.
2. No. $p = .25$ would mean that chances are there would be a response only one-fourth of the time.
3. Right! Some response will occur every time.

GO TO THE NEXT PAGE.

We assume $p = 1.00$ that some response will be made. Let's assume that there are 10 different kinds of responses possible. Each of these kinds of responses has some likelihood of being made on any given occasion. But two different responses can't be made at the same time. That is, one and only one response will occur each time. If we sum the probability of occurrence of each possible different kind of response, the sum must be equal to:

1. 10
2. 1.00
3. .10

Choose one.

If you answered:

1. No. This would mean that every one of the 10 responses was certain to occur on each occasion, but we already know that only one response can occur on each occasion.
2. Right!
3. No. This would mean that some response would occur only once in every 10 occasions, but we already know that some response will occur on every occasion.

GO TO THE NEXT PAGE.

So the probabilities of all categories must sum to 1.00. How are these probabilities determined? In other words, how do we determine the likelihood that a person will make a given response--before he makes it?

Obviously, we can only give a rough estimate of this probability based on past performance. This is, in fact, what we do.

Using the scores shown on the tally sheet that follows, how can we transform each one into a probability value such that all values sum to 1.00?

1. Divide the number of responses in each category by the total number of responses given.
2. Put a decimal point in front of the number of responses in each category.
3. Make the largest category $p = 1.00$ and the rest of the categories $p = .00$.

Choose one.

If you answered:

1. Right!
2. No. This would not be equal to 1.00.
3. No. This would in no way correspond to the number of responses in each category.

GO TO THE NEXT PAGE.

TEAR OUT THE PRACTICE TALLY SHEET AT THE END OF THIS APPENDIX. NOW, COMPUTE THE p VALUE OF THE FIRST CATEGORY ON THE TALLY SHEET.

1. Number of simple responses in first category = 4
2. Total number of simple cue attendance responses = 20
3. $4/20 = .2$
4. p (category) = .2 Right? Right.

COMPUTE THE PROBABILITY OF THE REST OF THE CUE-ATTENDANCE CATEGORIES. TO CHECK YOUR ANSWERS, GO TO THE NEXT PAGE.

Look up the $p_i \log_2 \frac{1}{p_i}$ value of each category by referring to Table

3. For Category I (M), $p = .2$. In Table 3 we see that for $p = .2$, $p_i \log_2 \frac{1}{p_i} = .47$. Look up the value of $p_i \log_2 \frac{1}{p_i}$ that corresponds to the p value for the rest of the categories.

Total the $p_i \log_2 \frac{1}{p_i}$ values in the box labeled H -Cues.

Check the $p_i \log_2 \frac{1}{p_i}$ values by consulting Table 3.

Check the total H score by turning to page 144 and the tally sheet which follows it.

Table 3

Values of $p_i \log_2 \frac{1}{p_i}$ Corresponding to Values of p

p	$p_i \log_2 \frac{1}{p_i}$	p	$p_i \log_2 \frac{1}{p_i}$	p	$p_i \log_2 \frac{1}{p_i}$	p	$p_i \log_2 \frac{1}{p_i}$
.01	.05	.31	.52	.61	.44	.91	.12
.02	.10	.32	.52	.62	.43	.92	.11
.03	.15	.33	.53	.63	.42	.93	.10
.04	.18	.34	.53	.64	.41	.94	.08
.05	.21	.35	.53	.65	.41	.95	.07
.06	.24	.36	.53	.66	.40	.96	.06
.07	.27	.37	.53	.67	.39	.97	.04
.08	.29	.38	.53	.68	.38	.98	.03
.09	.31	.39	.53	.69	.37	.99	.01
.10	.33	.40	.53	.70	.36	1.00	.00
.11	.34	.41	.53	.71	.35		
.12	.37	.42	.53	.72	.34		
.13	.38	.43	.52	.73	.33		
.14	.40	.44	.52	.74	.32		
.15	.41	.45	.52	.75	.31		
.16	.42	.46	.52	.76	.30		
.17	.43	.47	.51	.77	.29		
.18	.45	.48	.51	.78	.28		
.19	.46	.49	.50	.79	.27		
.20	.47	.50	.50	.80	.26		
.21	.47	.51	.50	.81	.25		
.22	.48	.52	.49	.82	.24		
.23	.49	.53	.48	.83	.23		
.24	.49	.54	.48	.84	.22		
.25	.50	.55	.47	.85	.20		
.26	.50	.56	.47	.86	.19		
.27	.51	.57	.46	.87	.18		
.28	.51	.58	.46	.88	.16		
.29	.51	.59	.45	.89	.15		
.30	.52	.60	.44	.90	.13		

Sum these values to determine the total score.

Did you get

$$\begin{array}{r} 1 \quad 2.95 \\ \quad \quad \quad .26 \\ \hline 2 \quad 3.25 \\ \quad \quad \quad 1.00 \\ \hline 3 \quad 2.70 \\ \quad \quad \quad .20 \\ \hline \end{array}$$

If you got 1 or 3, add them again and see what you get this time.

The Category System, With Codes

CUE-ATTENDANCE CATEGORIES
(Primarily Descriptive)

- I. MATERIAL ATTRIBUTES
 (M) Material
 (T) Technique
 (SQ) Surface Quality
- II. LITERAL ATTRIBUTES
 (LO) Literal Object
 (LC) Literal Content
- III. SENSORY ATTRIBUTES
 (C) Color
 (L) Line
 (SH) Shape
 (LT) Light
- IV. ORGANIZATIONAL ATTRIBUTES
 (CR) Comparative Relationship
 (PO) Principle of Organization
- V. EXPRESSIVE ATTRIBUTES
 (EQ) Expressive Quality
 (US) Unique Schemata
 (PQ) Pervasive Quality
- VI. CONTEXTUAL ATTRIBUTES
 (AF) Art Form
 (H/C) Historical/Cultural
 (ST) Style

HYPOTHESIS-GENERATION CATEGORIES
(Primarily Interpretive)

- VII. MEANING ATTRIBUTES
 Literal Reference
 (HA) Hypothesis - Action
 (HT) Hypothesis - Thoughts
 (HS) Hypothesis - Sensations
 (HNO) Hypothesis - Nature of
 Object
 (HC) Hypothesis - Context
 Affective Reference
 (HAF) Hypothesis - Affect
 (HSF) Hypothesis - Subjective
 Feeling
 Symbolic Reference
 (HSA) Hypothesis - Symbolic
 Aspect
 (HTH) Hypothesis - Thematic
 (HF) Hypothesis - Fantasy
- VIII. CONTEXTUAL ATTRIBUTES
 (HAR) Hypothesis - Artist
 (HST) Hypothesis - Style

EVALUATIVE-JUDGMENTAL CATEGORIES
(Primarily Evaluative)

- IX. AFFECTIVE, OBJECTIVE RESPONSES
 (AJN) Affective Judgment,
 Not Supported
 (AJS) Affective Judgment,
 Supported
 (OEN) Objective Evaluation,
 Not Supported
 (OES) Objective Evaluation,
 Supported

Practice Tally Sheet

		↑ H		↑ PROE		↑ f		I. MATERIAL ATTRIBUTES										M		T		SQ		II. LITERAL ATTRIBUTES			LO		LC		III. SENSORY ATTRIBUTES			C		L		SH		LT		IV. ORGANIZATIONAL ATTRIBUTES			CR		PO		V. EXPRESSIVE ATTRIBUTES			EQ		US		PQ		VI. CONTEXTUAL ATTRIBUTES			AF		H/C		ST		TOTAL				H - CUES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

	H	↑	PROB ↑	f ⁺
MEANING ATTRIBUTES				
LITERAL REFERENCE				
HA	HT	HS	HNO	HC
AFFECTIVE REFERENCE				
HAF	HSF	SYMBOLIC REFERENCE		
HSA	HTH	HF	CONTEXTUAL ATTRIBUTES	
HAR	HST	TOTAL		
H - HYPOTHESES				

AFFECTIVE OBJECTIVE RESPONSES		AJN	AJS	OEN	OES	TOTAL	H - EVALUATIVE-JUDGMENTAL
	f +						
PROB	H +						